

CHINATOWN 2020 MASTER PLAN: A HEALTH LENS ANALYSIS



DECEMBER 2018

Acknowledgments

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This report is dedicated to all of the long-standing residents of Chinatown who make the neighborhood the unique and vibrant community we know today.

Student Team

Syed Ali, Maura Barry-Garland, Emily Damon, Mariana Pereira Guimarães, Anna Miller, Chris Nelson, Juan Reynoso, Yun Zhu

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quán

全

quán jiā : whole / entire family



家

jiā

jiā pǔ : ancestor



My memories of
Chinatown are of my
mom. The passion she
had for her community
and the voice she had
to change it for her
children.

— Angela Soo Hoo

EXECUTIVE SUMMARY

Purpose

In conjunction with the Metropolitan Area Planning Council (MAPC) and the Chinatown Community Land Trust, we sought to conduct a health lens analysis to highlight how Chinatown's built environment impacts the physical, mental, and social well-being of Chinatown residents. The project's ultimate goal is to have health considered and preserved as a primary focus in the 2020 Chinatown Master Plan and to raise stakeholder awareness about the importance of considering health in the development and planning process. Our research consisted of literature reviews, secondary data analysis, site visits to the neighborhood, and key informant interviews with neighborhood residents and stakeholders.

At the Boston Planning & Development Agency's (BPDA) public launch of the PLAN: Downtown initiative on December 3, 2018, we became aware that Chinatown was no longer slated to receive their own neighborhood master plan. Rather, the neighborhood is scheduled to be bundled into the larger Downtown planning effort. Given the histories of urban renewal and exclusion in Chinatown, we fear that subsuming the neighborhood under a larger plan dilutes the community's voice and is a step toward erasure of Chinatown from the map. As this report describes in detail, Chinatown is a unique neighborhood and deserves its own neighborhood master plan. The recent iterations of Chinatown's neighborhood master plans have allowed community stakeholders and residents, many of whom come from disenfranchised backgrounds, to be empowered to be co-creators in the development of their community.

Research Findings

Overall, through this health lens analysis, we identified several key research findings:

- Chinatown's boundaries and size vary among community residents and the City of Boston.
- As of 2016, the majority of households in Chinatown were classified as extremely low-income, yet there were also significant percentages of very high-income households. This polarization is also present in the housing market as Chinatown has higher percentages of both very low-rent and very high-rent units on the market, yet a dearth of middle-income units, compared to the rest of the city. Therefore, Chinatown is arguably the neighborhood with the greatest disparity in wealth in the City of Boston.
- Through interviews with residents and stakeholders, we identified six core public health concerns: housing, public realm (noise, security, pest infestation, and trash), air quality, climate change, walkability, and open space.
- Besides a few census tracts of mostly college students who do not own vehicles, Chinatown has the highest pedestrian mode share among established Boston neighborhoods with long-standing residents.

- Chinatown residents have significantly less access to green space than do residents of other Boston neighborhoods. This lack of green space poses a problem both because of how it affects the daily quality of life and because it could exacerbate extreme weather events like flooding and heat waves that negatively impact public health.
- Chinatown's uniqueness as a cultural asset to Chinese American residents, coupled with development pressures the neighborhood is experiencing, highlight the importance of the neighborhood receiving its own Master Plan.
 - ◆ Grouping Chinatown with other downtown neighborhoods dilutes the voices of Chinatown residents and produces barriers to residents self-determining the future of their neighborhood.

Next Steps

- ❑ Chinatown should receive its own neighborhood Master Plan for 2020.
- ❑ Healthcare organizations and planners should work together to gather disaggregated health data of Chinatown residents.
- ❑ In conjunction with the Public Works Department, conduct a parking and transportation demand management study to quantitatively assess ideal candidate streets for closure in order to improve local air quality, increase pedestrian safety, and expand open space.



至孝為親公可

KYS

NAM BAC HONG CHINESE HERBS

花旗人參，藥材海味，成藥石茶

Great Wall

鳳鳴野味館

BACKGROUND DATA

Neighborhood Context

Boston's Chinatown was founded in the late 1800s and is one of the last remaining moderate-sized Chinatowns in the U.S. The South Cove Urban Renewal Plan of 1965 altered the community landscape and redeveloped Chinatown and the South Cove area. Urban renewal, institutional expansion, and the construction of two interstate highways disrupted the community and has displaced over a thousand residents (Chinatown Master Plan, 2010).

Chinatown is located at the junction of the Massachusetts Turnpike and I-93 Expressway, an area with significant traffic congestion. Vision Zero Boston data illustrates many of the streets and intersections within Chinatown are vulnerable to pedestrian, bicyclist, and motor vehicle crashes. Kneeland Street and Washington Street have particularly high concentrations of crashes involving pedestrians in the last two years. The John F. Fitzgerald Expressway, constructed in the 1950s, was designed to slice through the center of Chinatown and avoid the wealthier Leather District. Tufts Medical Center now comprises a large portion of the land in Chinatown and the number of small businesses has declined (ESRI Business Analyst, 2018).

Reggie Wong Park lies between the highway and off-ramps along Kneeland Street and contains little greenery around or within it. The park contains two basketball and one volleyball court, although they are poorly maintained and underutilized, and the park is vulnerable to heavy air pollution from the I-93 South tunnel, the I-93 North off-ramp and the South Station Connector.

A Note on Boundaries

In any urban environment, the scope of what is considered a neighborhood's boundaries is both individually defined and ever-changing. Boston's Chinatown is no exception. Throughout its history, Chinatown's boundaries have expanded and contracted (see section on Past Master Plans for Boston's Chinatown).

For the current master plan renewal, BPDA has tentatively proposed the study area as State Street and Government Center to the north, the JFK Surface Road and Rose Kennedy Greenway to the east, Marginal Road to the south, and Charles, Boylston, and Tremont Streets to the west (see Figure 1). The BPDA further plans to exclude institutional land, which is mostly Tufts Medical Center, and the Chinatown Gateway Study Area, land owned by the Massachusetts Department of Transportation, from this planning effort even though both of these lands are located within Chinatown. Moreover, it is important to note that Chinatown is not slated to receive their own neighborhood master plan, but rather will be packaged under the larger Downtown plan.



Figure 1: The BPDA proposed study area boundary (in yellow) and the Chinatown Neighborhood Council proposed boundary (in red). Institutional parcels (in blue) will not be included as part of the BPDA plan.

In contrast, the Chinatown Neighborhood Council has proposed the study area as Essex Street to the north, the I-93/JFK Surface Road to the east, East Berkeley Street to the south, and Washington Street to the west yet cutting over to Tremont Street. Unlike the BPDA plan, the community defined boundary includes institutional land as well as key community assets such as the Castle Square housing community and the Chinatown Gate.

For the purposes of this health lens analysis, both the tentative BPDA and Chinatown Neighborhood Council boundaries are presented. As part of the quantitative data collection, however, only the Chinatown Neighborhood Council boundary is compared to current United States Census Bureau census tract and block group boundaries. A census tract is a small, relatively permanent statistical subdivision of a county that is updated by local officials every ten years; they generally have a population size between 1,200 and 8,000 people (U.S. Census Bureau, 2018). A block group is a statistical subdivision of a census tract and are generally defined to contain between 600 and 3,000 people (U.S. Census Bureau, 2018).

As shown by the maps below, Chinatown includes portions of three census tracts and seven block groups. Because of their smaller size, the seven block groups provide a more approximate estimate of Chinatown demographics; yet they typically have a larger margin of error. Therefore, in the following sections, the census tract boundaries are used when comparing Chinatown with the rest of the city in order to provide greater statistical accuracy; the block group boundaries are used when assessing Chinatown on its own in order to provide greater statistical precision. Overall, quantitative data was gathered from 5-Year combined estimates for 2012-2016 from the United States Census Bureau's American Community Survey rather than from single-year estimates for 2017 (U.S. Census Bureau, 2018).

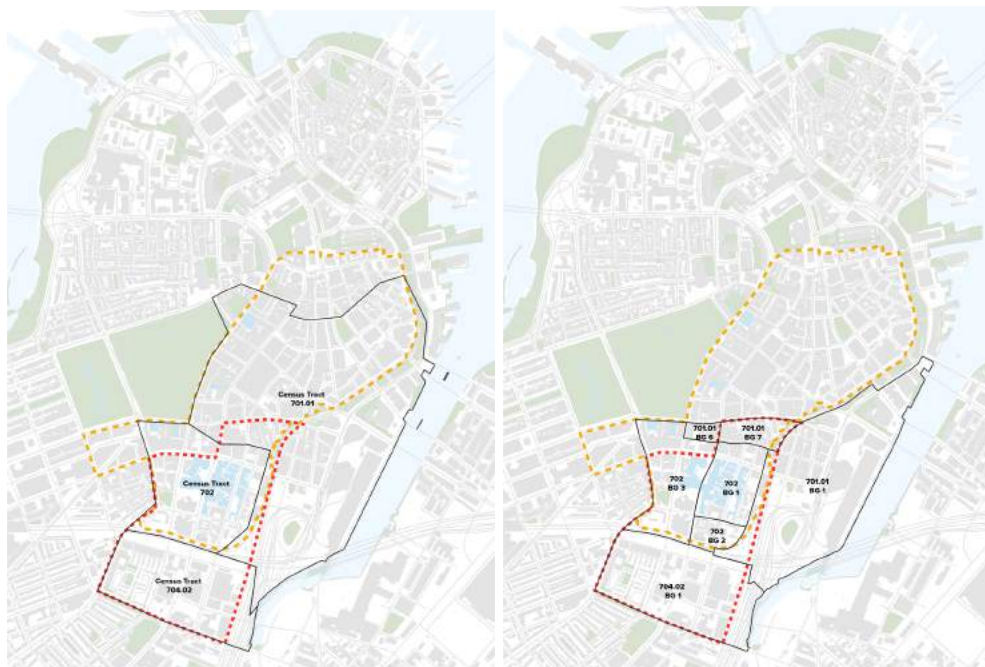
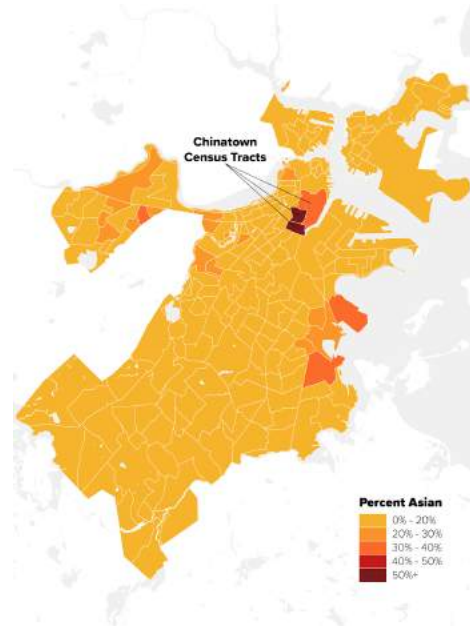


Figure 2: The BPDA and Chinatown Neighborhood Council boundaries overlayed with the U.S Census Bureau's census tract and block group boundaries.

Current Demographics

Despite the ever-shifting boundaries of Boston's Chinatown, it is possible to calculate an approximation of the demographics of the neighborhood. As of 2016, Chinatown is home to an estimated 10,218 residents, of which 5,497 residents identify as "Asian" or "Asian American". Thus, Asians and Asian Americans make up approximately 53.8% of the neighborhood's total population. In comparison to the rest of the city, Chinatown has by far the highest percentage of Asian and Asian American residents (see Figure 3). In fact, two of the three Chinatown census tracts are the only census tracts in all of Boston that are majority Asian American.



*Figure 3: Chinatown has the highest percentage of Asian and Asian American residents in Boston.
(U.S. Census Bureau, 2018)*

As of August 2018, the City of Boston and the United States Department of Housing and Urban Development define Boston's area median income (AMI) for a household of four as an annual median income of \$107,800 and they define extremely low income (less than 30% AMI) for a household of four as an annual median income below \$32,350 (City of Boston, 2018). Adjusting for variation in household size, a family in Boston making less than \$30,000 is generally classified as being extremely low income. As of 2016, about 51.8% of all households in Chinatown fall below this threshold.

In comparison to the rest of the city, Chinatown has a higher prevalence of extremely low-income households. As shown by Figure 4, two of the three census tracts in Chinatown have over 50% of their households living below the threshold of \$30,000/year. It is important to note that while poverty itself is incredibly stressful on a household and associated with worse health outcomes, the spatial proximity of poverty with extreme wealth within the same neighborhood can be an added source of psychological stress (Patel et al., 2018). The census tracts highlighted in Figure 4 on the right are those where at least 50% of households make less than \$30,000/year and at least 5% of households make more than \$200,000/year. The two census tracts in Chinatown with high levels of extremely low-income households are also two of only four census tracts in Boston where there is a large contrast between the rich and the poor. Although Chinatown is one of many neighborhoods in Boston with deep levels of poverty, it is arguably the neighborhood with the greatest disparity in wealth because it is the only one with multiple census tracts that have extreme income inequality.

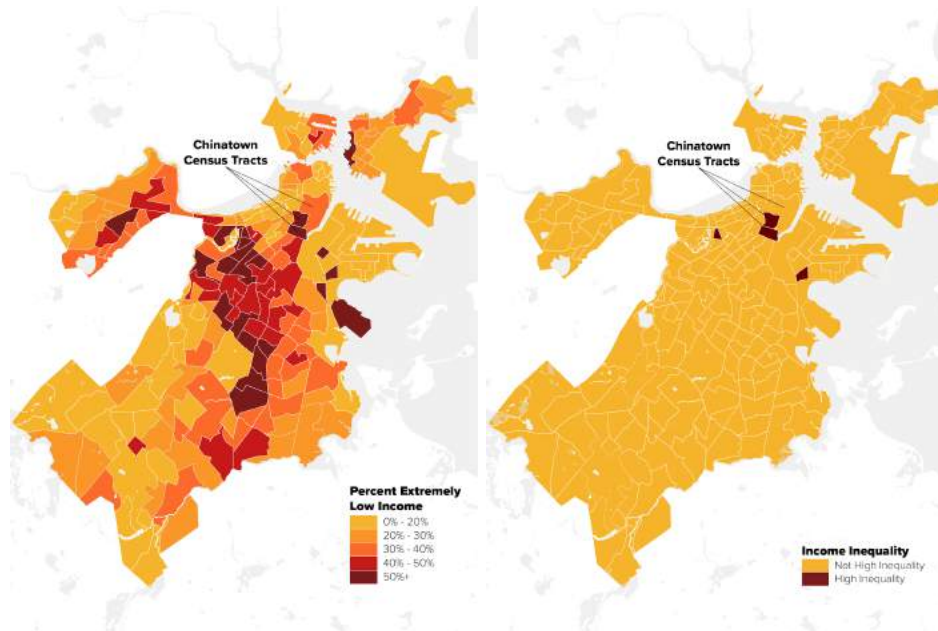


Figure 4: Chinatown has one of the highest percentages of households who are extremely low income and also is home to two of only four census tracts in the entire city with high-income inequality. (U.S. Census Bureau, 2018)

Moreover, in terms of resident origin, Chinatown is home to one of the highest percentages of foreign-born Bostonians. In fact, the southernmost census tract in Chinatown (Census Tract 704.02) has the fifth highest percentage in the city of foreign-born residents and the fifth highest percentage in the city of residents who do not speak English as their primary language; the top four census tracts are all in East Boston.

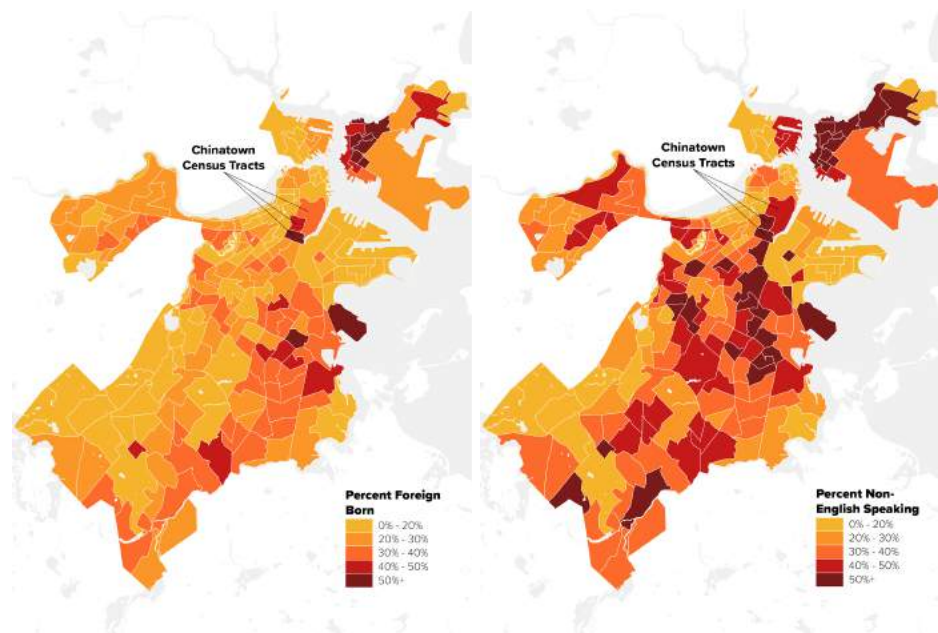


Figure 5: Chinatown is home to a high concentration of residents who are foreign-born and who do not speak English as their primary language. (U.S. Census Bureau, 2018)

Qualitative Data

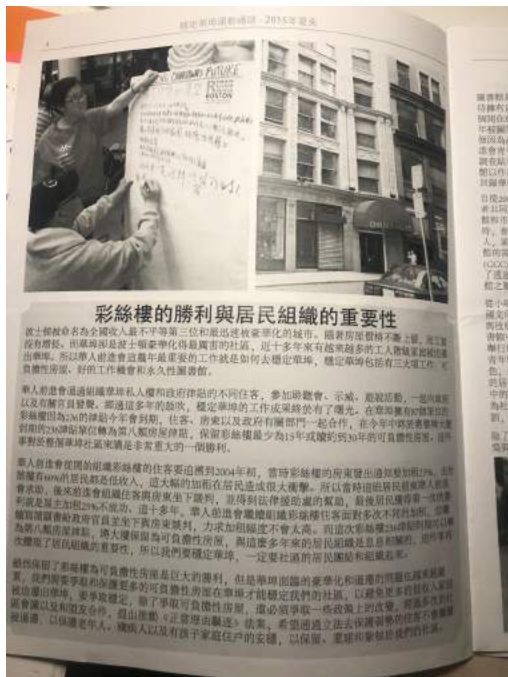
During the early phases of the health lens analysis for the Chinatown neighborhood master plan update, we attended community meetings and met with stakeholders and leaders who provided their perspective on important public health and urban planning issues facing the community. The below table provides a summary of those data gathering sessions with community stakeholders. Moreover, we conducted key informant interviews with community residents to gather information on the health challenges more salient for them (see Appendix for full transcripts from interviews).

Date	Location	Organization	Major Themes
October 23, 2018	28 Ash Street, Boston	Resident Association Steering Committee	Air pollution Noise Trash Hypodermic needles Rodents Evictions Public urination Greenery
October 28, 2018	28 Ash Street, Boston	Chinatown Land Trust Board	Air quality Climate change Public smoking Asthma Pedestrian fatalities Diabetes High stress Affordable housing Overcrowding Job/housing quality Public space Greenery Rodents

Based off of this qualitative data, key themes were generated for the focus of the analysis. The top public health concerns raised can be grouped into six categories: housing, public realm, air quality, climate change, pedestrian fatalities, and open space. The below table outlines specific issues raised within each of these six categories. The ensuing Quantitative Data section of the Background Data chapter (page 14) provides a short analysis for each of the first five categories. Given MAPC's interest in Chinatown's Reggie Wong Park, the Open Space chapter (page 36) provides a long-form analysis of the open space category.

Public Health Concern	Specific Issues
Housing	Lack of affordable housing, overcrowding, housing quality, eviction, and displacement
Public Realm	Excessive crime, noise, garbage, rodents, and a general lack of cleanliness and safety in the public space
Air Quality	Excessive air pollution from traffic, high smoking rates, asthma, and lung cancer
Climate Change	Sea level rise and flooding from storms
Walkability	Pedestrian fatalities and pedestrian safety
Open Space	Lack of tree coverage and greenery, lack of open space

These various public health issues in Chinatown are also often present in the public consciousness as a media scan of multiple local Asian news sites demonstrates that they regularly cover issues of cigarette smoking, lung cancer, air quality, rising housing costs, and the inability to find affordable homes (Chinanews, 2018; Sampan, 2018).



According to our media scan, stagnant wages in the face of increasing housing prices make Chinatown one of the most inequitable neighborhoods in Boston. Moreover, the commercialization of Chinatown has been the most rapid in Boston. Over the past decade, increasing numbers of low-income families have been forced to leave Chinatown because of skyrocketing housing prices as residential units have been transformed into commercial buildings. As a result, affordable housing and public facilities are priorities for many organizations in Chinatown like the Chinese Progressive Association.

Figure 6: News from China Concern Group, 2015

One example is successfully negotiating with the government to ensure the preservation of Building Caisi. In 2015, concerns emerged that the impending expiration of the Section 236 Preservation Program would lead to the loss of 87 units of affordable housing. Sustained advocacy by local residents and organizations led to Building Caisi transitioning from the Section 236 Preservation Program to the Section 8 Housing Choice Voucher Program. The transition successfully preserved the affordability of the Building Caisi for another 15-30 years.

Though the preservation of the Building Caisi was a success, the rapid commercialization of Chinatown has been more serious and striving for the right of affordable housing has been a huge challenge for the community. The residents and organizations hoped to promote some policy changes like “Right to Remain Boston Assembly” and “housing justice.” They hope to go through the legislation and prevent the expulsion of vulnerable populations like the elderly, disabled, and families with children.

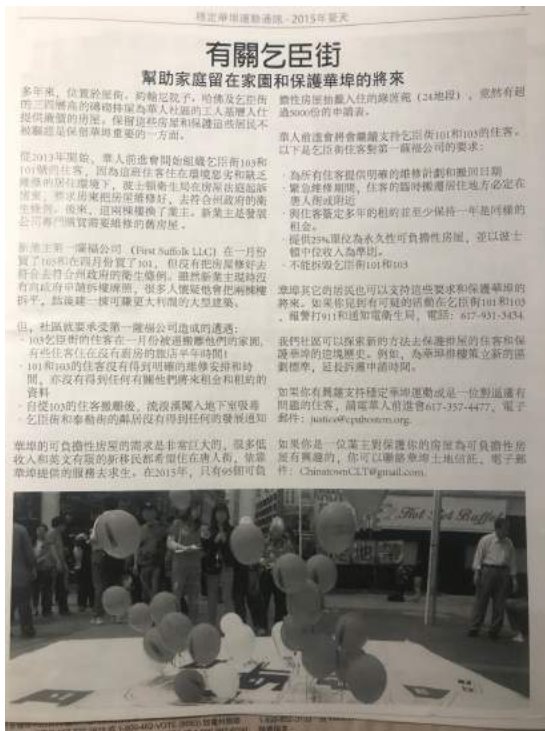


Figure 7: News from China Concern Group, 2015

The newspaper scan on the right “The Return of Chinatown Boston Public Library” illustrates how with community efforts, Chinatown finally built their own Boston Public Library and explains the process of this build-up including organizing meetings around different targeted groups in the community, conducting focus group interviews and designing social space for the community. This initiative was mostly promoted by the Youth Dynamics Organization and the Chinese Progressive Association. The groups invested a lot of effort to talk with different stakeholders around this issue and finally made the petition for the establishment of the public library.

The newspaper on the left talks about the suffering of the hostile living environment for many Chinatown residents. It pointed out some problems around housing and one of them was the safety issue. It took an example of The First Suffolk LLC, a real estate company: they did not follow the safety and sanity instructions set by the government and many residents originally lived there had to leave their apartment and lived in a small hotel without a kitchen for half of a year. Overall, the demand for affordable housing is huge. For many low-income residents and residents who have limited English, they could only rely on services provided by Chinatown for a living. In 2015, for an area that had 95 units of affordable housing, there were more than 5000 applications.

Quantitative Data

Below, in the following sections, is an analysis of five of the six top public health concerns in Chinatown through a quantitative review of existing public data.

Housing

Many of the top health concerns raised repeatedly during our data gathering process were issues related to housing, especially housing affordability.

Housing ownership is an indicator of wealth accumulation and provides a stabilizing buffer against spikes in housing costs. However, 87.2% of households in Chinatown are renters, which is a much higher percentage than the 63.3% renter average for the entire City of Boston. When comparing the three Chinatown census tracts to each other and the rest of the city though, a different picture emerges (see Figure 8). The housing tenure breakdown in Chinatown's southernmost census tract (Census Tract 704.02) skews far toward renters and, in fact, an estimated 99% of all households are renters. This high renter rate is a concern for households who live in private rental housing (as opposed to public or non-profit) since they have less of an ability to resist displacement with the current rise in housing costs.

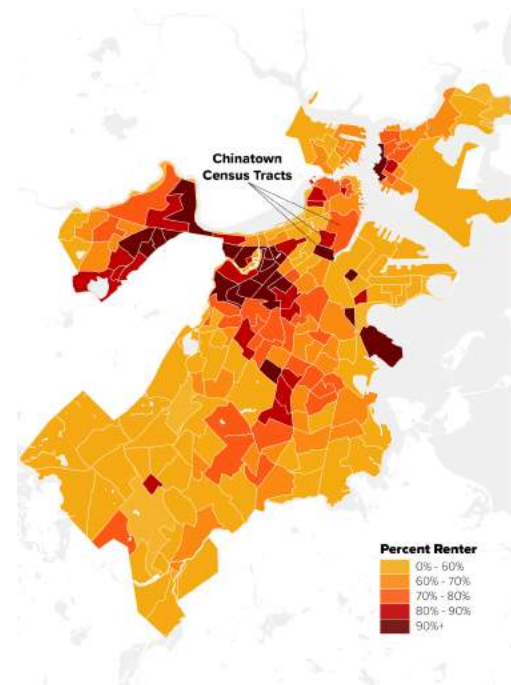


Figure 8: Chinatown, especially its southernmost census tract, has a greater percentage of renter-occupied households than the rest of Boston. (U.S. Census Bureau, 2018)

Specifically, among renter-occupied housing units, 32.5% of rental units in Chinatown went for a rent below \$500 in comparison to 19.3% of rental units across Boston. However, given its proximity to Downtown, Chinatown also had a greater percentage of higher rent units (\$2,500 or more) than the rest of the city (see Figure 9). This polarization of both very low-rent units and very high-rent units on the market matches the earlier demographic analysis that Chinatown is a neighborhood with extreme income inequality.

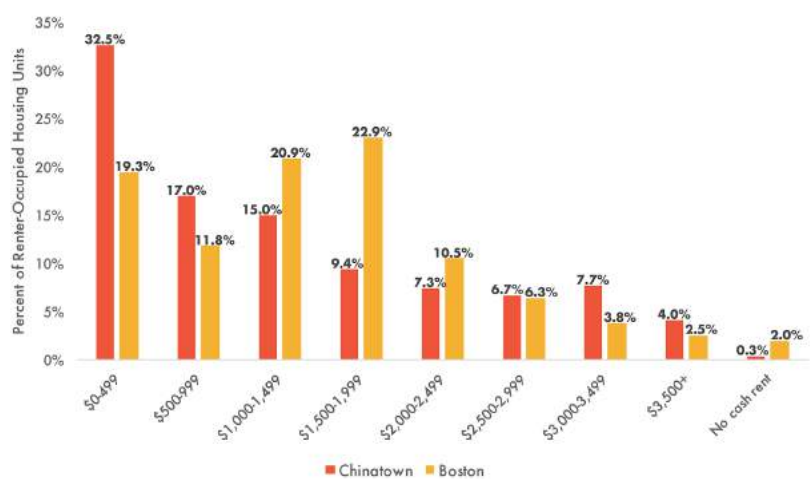


Figure 9: Chinatown has rental units at both economic extremes of the market. (U.S. Census Bureau, 2018)

Overcrowding was a significant concern among community leaders, residents, and stakeholders. The U.S. Department of Housing and Urban Development defines “overcrowding” as more than one person per room and “severely overcrowded” as more than 1.5 persons per room (HUD, 2018). As of 2016, 5.8% of Chinatown renter households are overcrowded or severely overcrowded, which is nearly double the percentage of 3.2% for the entire City of Boston. However, in comparison to specific other neighborhoods in the city, such as East Boston, Chinatown has a relatively low overcrowding rate among renter households. Thus, at an overall level, it appears that overcrowding is not as great of an issue for the neighborhood to address in comparison to other housing concerns.

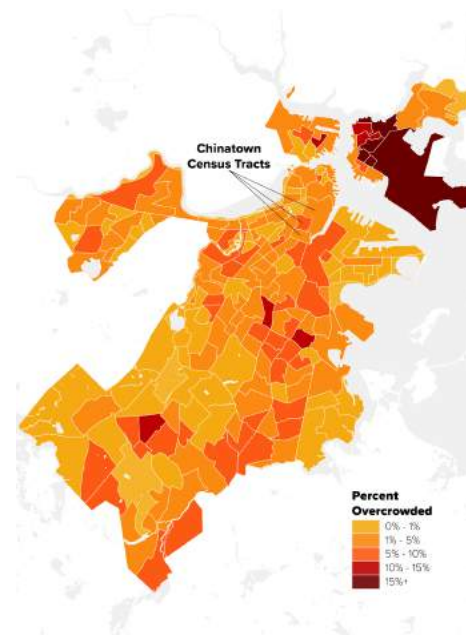


Figure 10: Chinatown has a relatively average overcrowding rate among renter households in comparison to the rest of Boston. (U.S. Census Bureau, 2018)

Finally, in terms of housing, a major concern in the community is housing stability for existing residents. Although eviction data is hard to collect, the American Community Survey does collect information on which year a household moved into their unit. As shown by Figure 11, Chinatown renter households have generally been residents of their units for a longer period of time than Boston renter households. By extension, Chinatown households have deeper roots in their neighborhood than do average renter households in Boston as a whole. It is important to note however that since Boston has a high percentage of university students who are highly transient, the city's overall proportion of recently moved renter households (2015 or later) is skewed compared to a non-university neighborhood such as Chinatown.

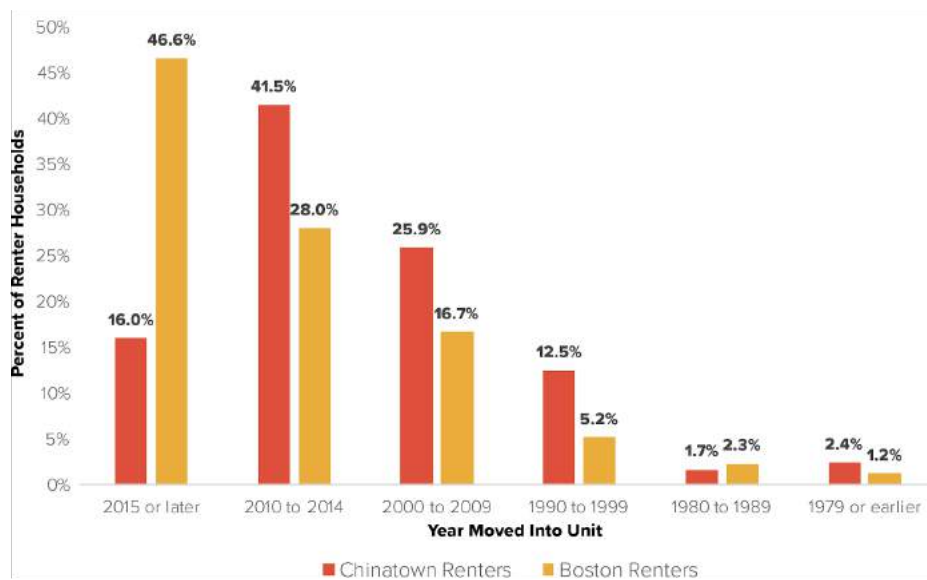


Figure 11: Chinatown renter households have lived for a longer period of time in their units than the average Boston renter household. (U.S. Census Bureau, 2018)

Furthermore, neighborhood residents cited concerns about displacement connected to the growing popularity of vacation rental companies, especially Airbnb. A sample search for a home to rent for the night through the platform's website provided 187 homes in Chinatown, although many described their location as "Downtown", "South End", "Boston Commons", "Convention Center", "Tufts Medical", and "Downtown Crossing". Certifying specific addresses of the homes is not possible without booking a property, but the website allows a user to outline an area within a map of the city. The average nightly price for one guest to stay in a home is \$216. Prices for a one night stay ranged from \$65 to \$1,000/night for a newly renovated 3 bedroom townhouse. Amenities included in some of the properties include gyms, pools, indoor fireplaces, and doormen.

Airbnb's website allows users to select for a host's language. When selecting for a Chinese-speaking host, the number of available listings drops from 187 to 15 (the site only offers the option of "Simplified Chinese" and does not provide Cantonese or Traditional Chinese as additional host language options).

Public Realm

Below are a series of maps that provide an understanding on the status of crime and sanitation in the public realm in Chinatown through the spatial use of data from the City of Boston's 311 Line Constituent Service Center and the Crime incident reports data provided by the Boston Police Department (BPD). The crime incident report dataset contains records from the new crime incident report system, that focus on capturing the type of incident as well as when and where it occurred. The 311 Line Constituent Service provides a record of service requests made by residents and report "non-emergency" issues. Both datasets are tabular data that was transformed into geolocated points using the coordinates provided in the tables. The points were then used to generate heat maps through the kernel density tool from ESRI ArcGIS Desktop 10.6.1. These maps were produced to triangulate qualitative data gathered during the community meetings and interviews. They confirm the residents' concerns and give them a more accurate location, that can serve as a starting point for a detailed field survey.

Sanitation - Boston's 311 Line Service

Sanitation and health-related complaints reported in the Boston's 311 Line Constituent Service from 2011 until December 2018:



Figure 12: Sanitation complaints related to garbage and trash in the streets, reported in the Boston 311 Line Constituent Service Center (2011-2018). It coincides with the concentration of restaurants and bars located along Beach St.



Figure 13: Rodent infestation complaints reported in the Boston 311 Line Constituent Service Center (2011-2018). It coincides with affordable housing locations and restaurants located in Beach St.

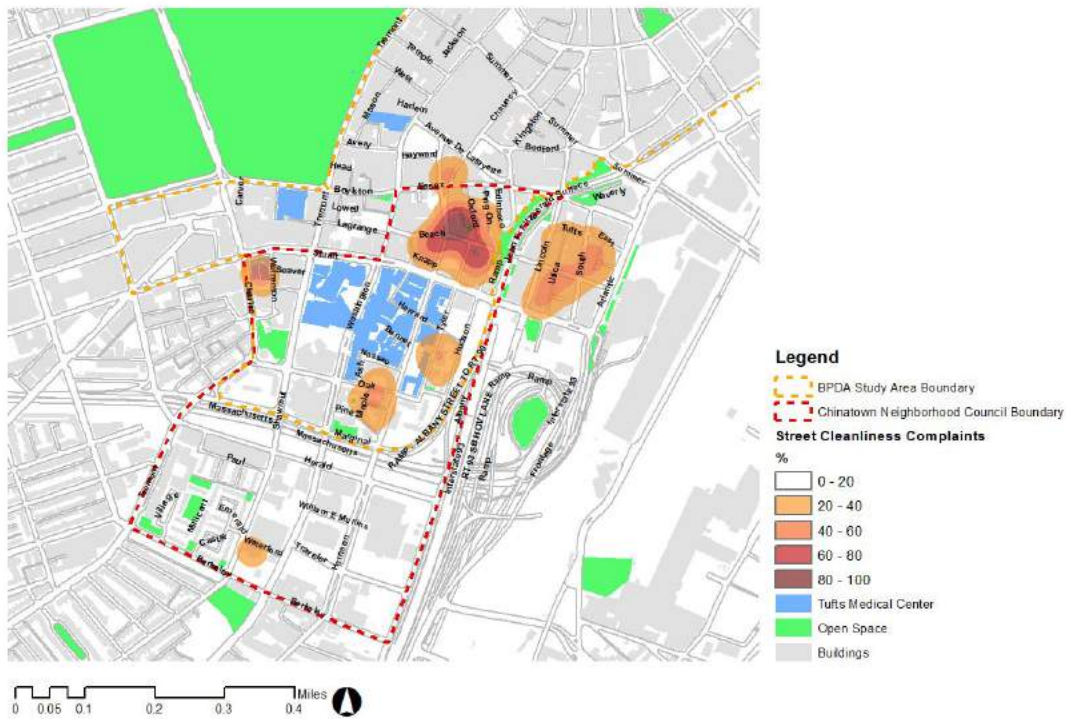


Figure 14: Street cleanliness complaints reported in the Boston 311 Line Constituent Service Center (2011-2018). Street cleanliness refers to both trash dumping and urination also coinciding with restaurants hotspots and clubs.

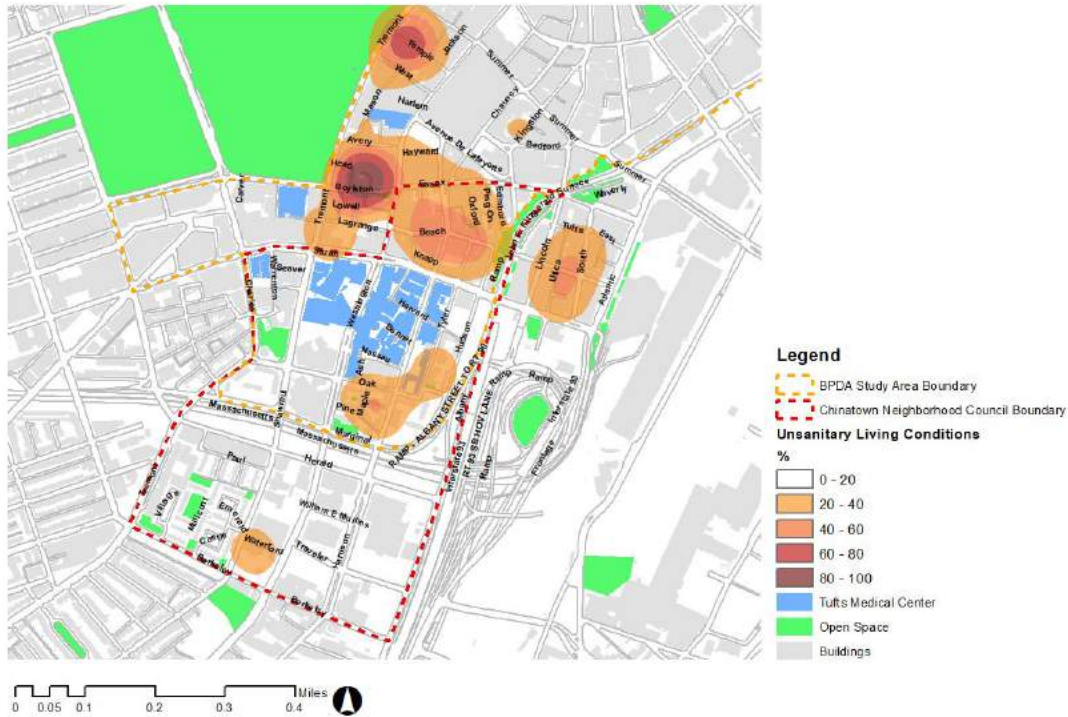


Figure 15: Unsanitary living conditions complaints regarding mold growth, pest infestation and cleanliness reported in the Boston 311 Line Constituent Service Center (2011-2018).

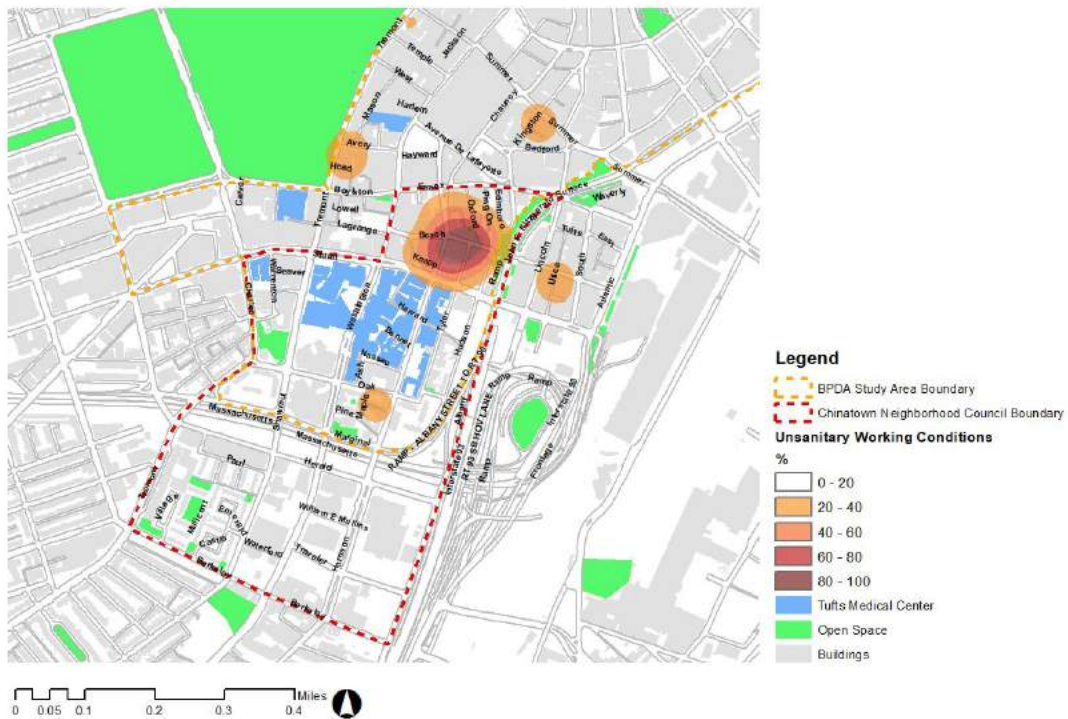


Figure 16: Unsanitary working conditions complaints regarding mold growth, pest infestation and cleanliness reported in the Boston 311 Line Constituent Service Center (2011-2018).

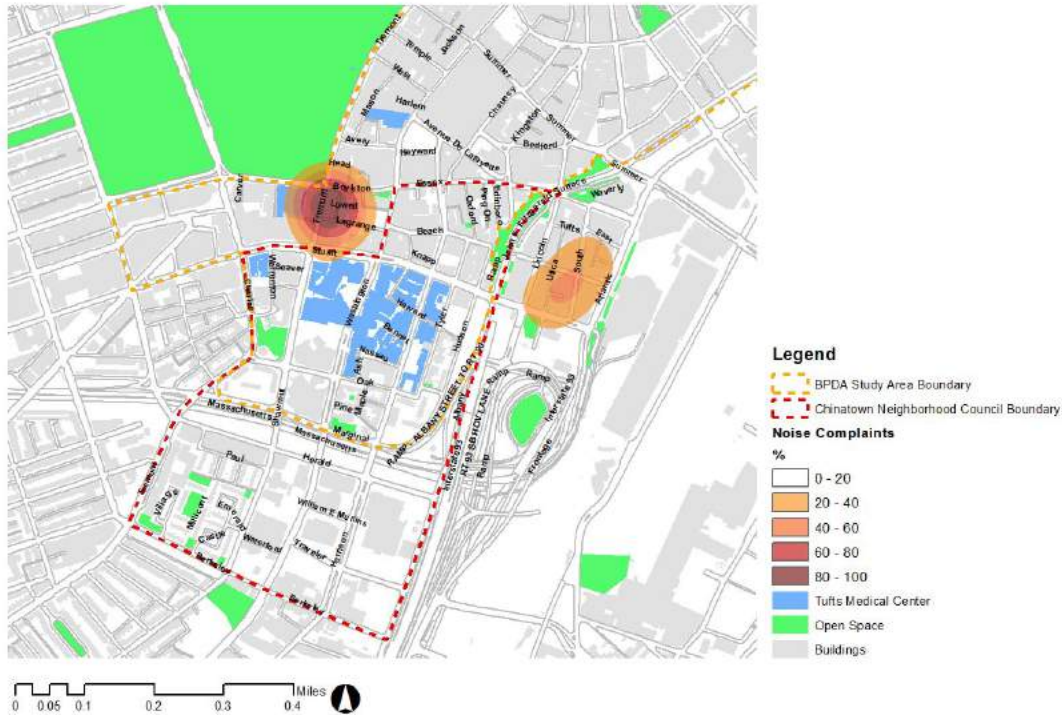


Figure 17: Noise complaints reported in the Boston 311 Line Constituent Service Center (2011-2018). It strongly correlates with the nightclubs hotspot locations located in Stuart St and Tremont St.

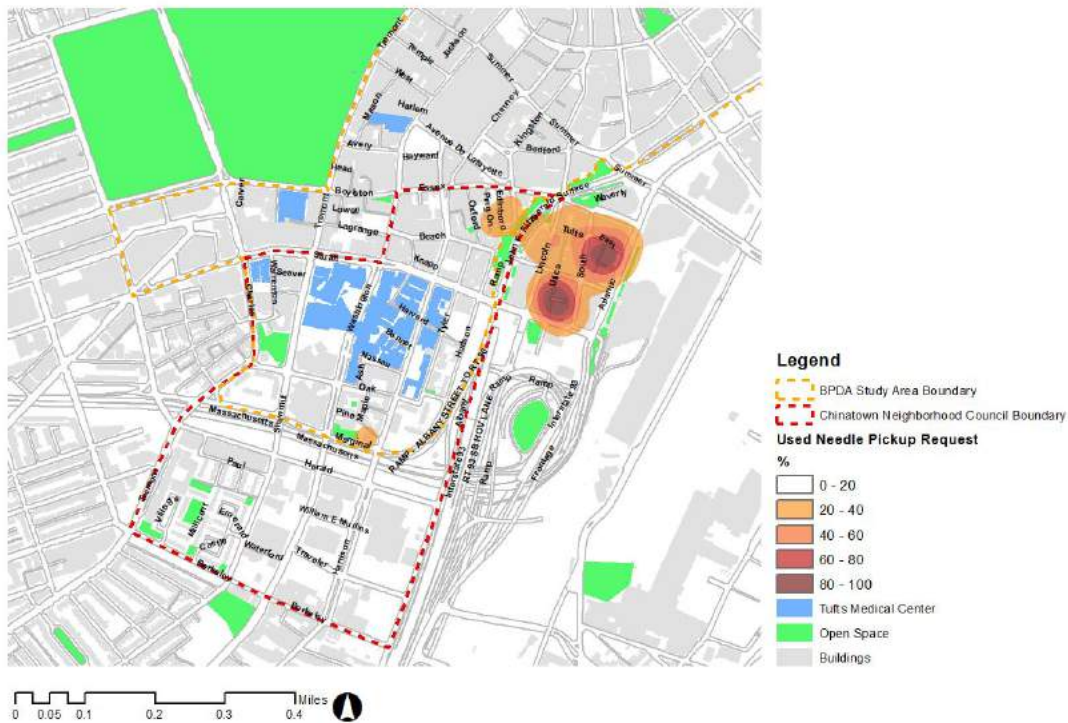


Figure 18: Used needles pickup requests reported in the Boston 311 Line Constituent Service Center (2011-2018). These requests seem to come mostly from the Leather District, in areas that are close to the South Station.

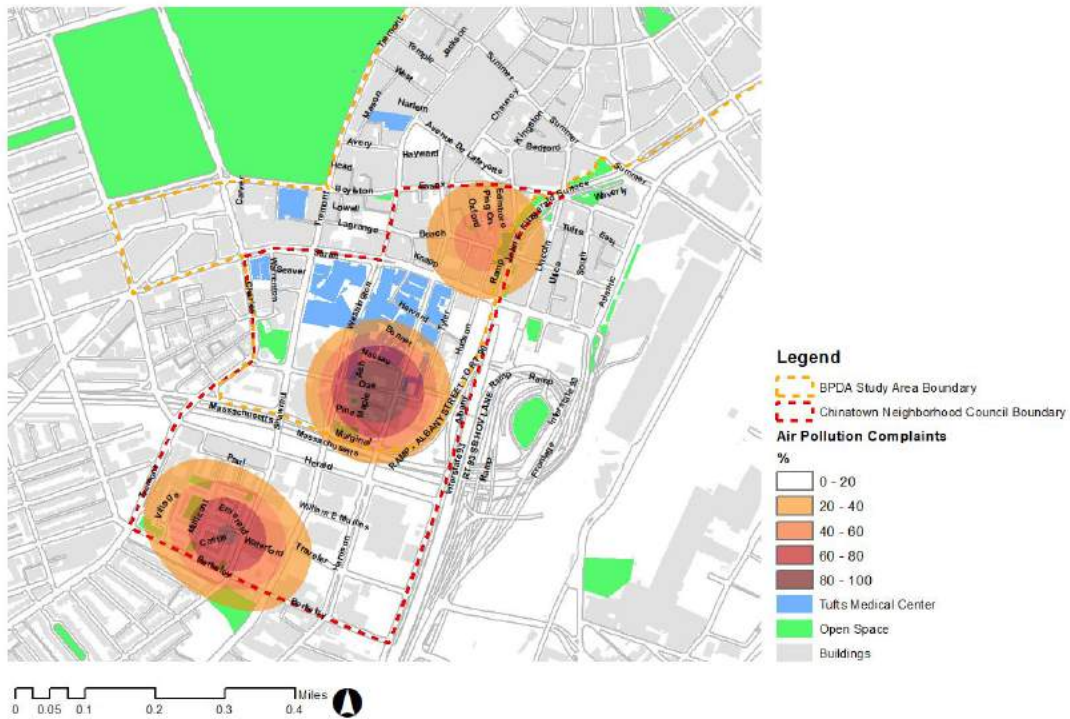


Figure 19: Air pollution complaints reported in the Boston 311 Line Constituent Service Center (2011-2018).

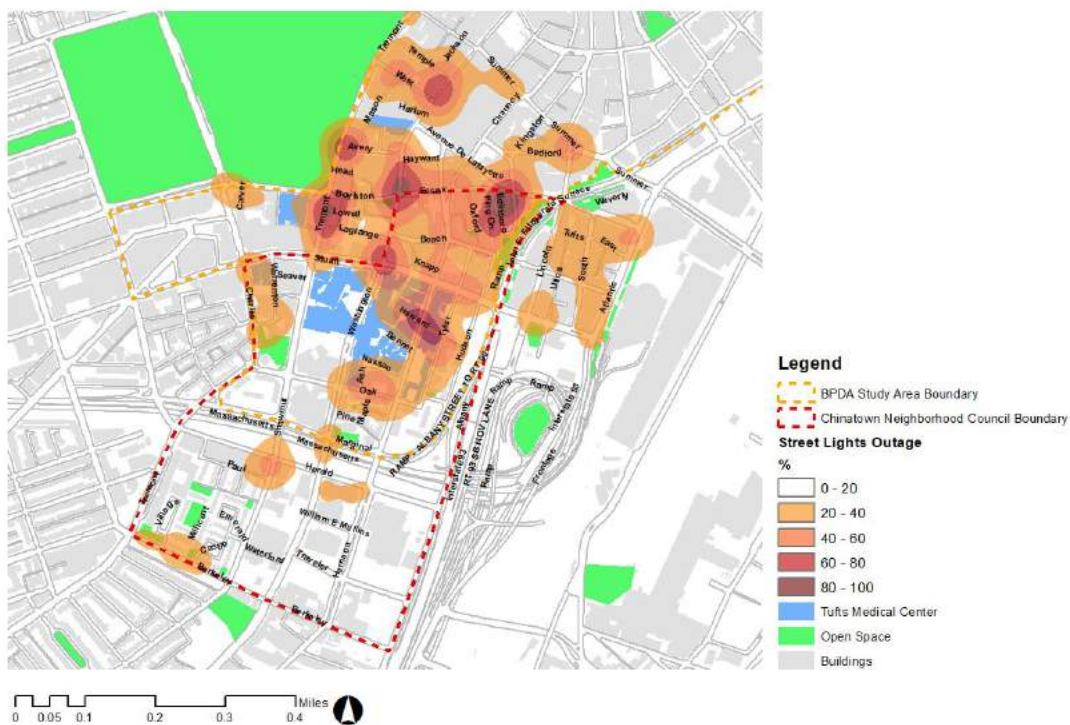


Figure 20: Streetlights outage complaints reported in the Boston 311 Line Constituent Service Center (2011-2018).

The maps below were produced with data from BPDA Land Use (2016), HUD (2016) and the business location database from the Simply Analytics platform (2018). These maps were included after the Boston's 311 Line Constituent Service maps to verify possible causes of the residents voiced concerns. The hot spots for complaints about street cleanliness, rodent infestation, and noise correlated with the existing hot spots of restaurants and nightclubs in the neighborhood. Rodent infestation and unsanitary living conditions also correlated with existing affordable housing. Air pollution complaints appeared scattered along the area, but concentrated in affordable housing that is located close to the highway and the Tufts Medical Center. One of the reasons for that is the high volume of traffic along the highway but also the traffic of ambulances in the medical complex. Ambulances also contribute to the “noise pollution” in the neighborhood. Further noise pollution studies need to be performed to gather data to confirm information gathered qualitative and to verify the correlation with ambulance traffic volumes in the area.

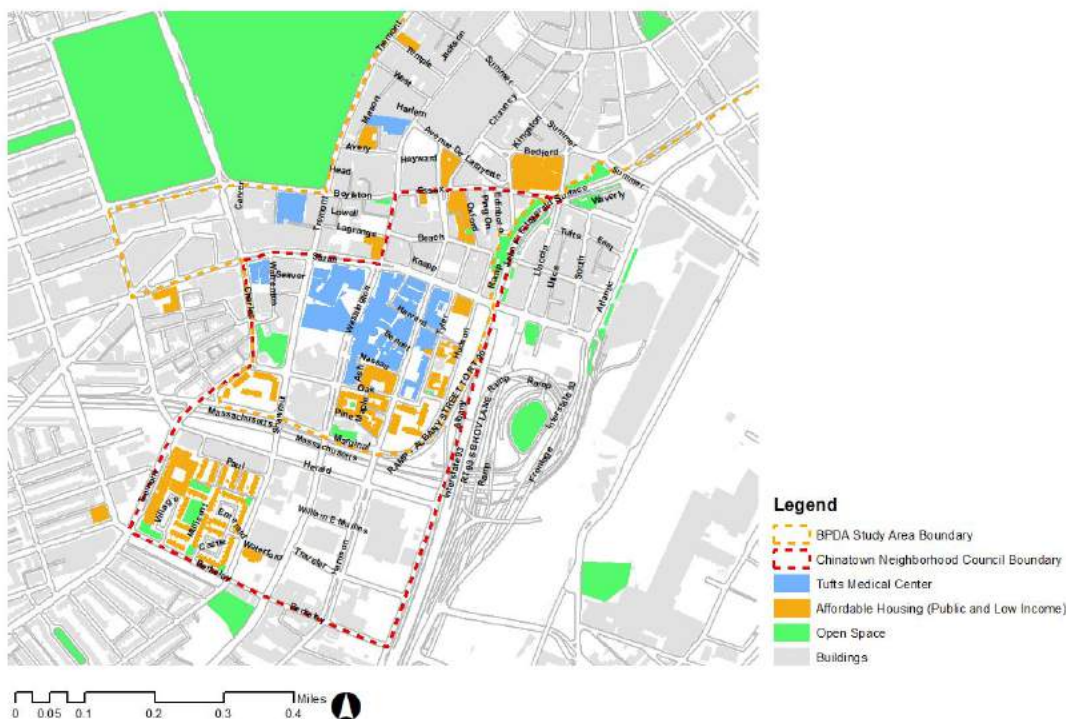


Figure 21: Affordable housing locations from the HUD (2016) database. Source: BPDA and Public Housing Developments and Low Income Housing Tax-Credit point locations from HUD, 2016.

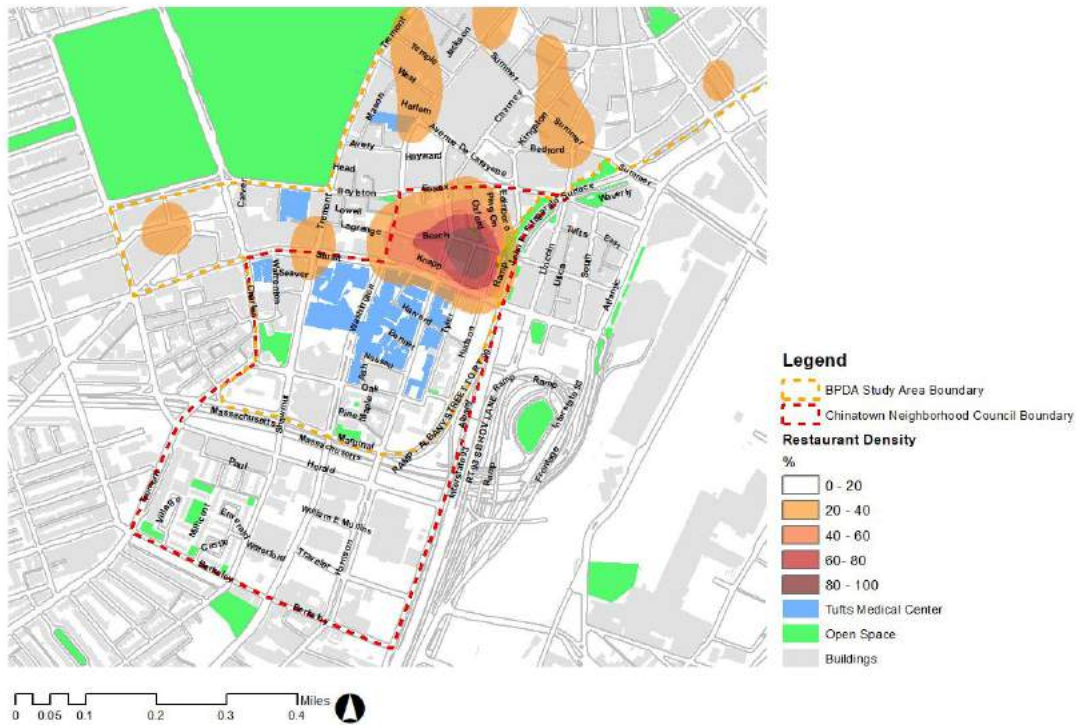


Figure 22: Restaurants kernel density map created with point location data in ArcMap 10.6.1 using the businesses location dataset collected in the Simply Analytics tool. Source: Simply Analytics business database (2018).

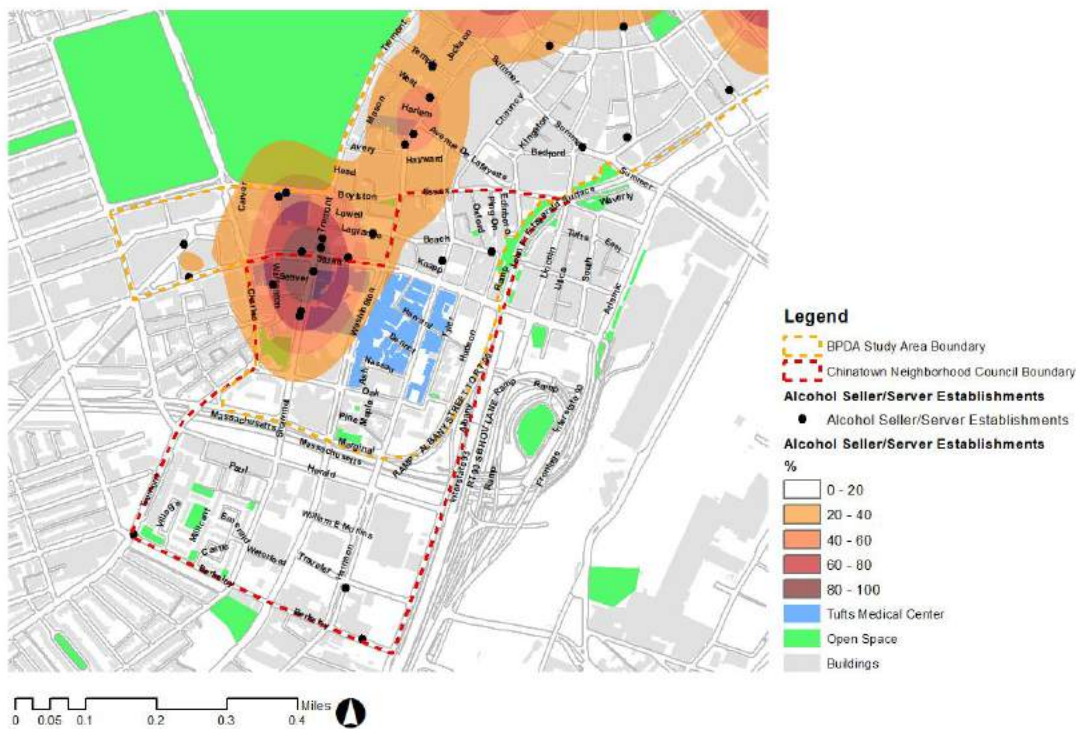


Figure 23: Nightclubs, bars and Pubs kernel density map created with point location data for businesses in Simply Analytics. Source: Simply Analytics business database (2018).

Crime - Crime incident reports provided by the Boston Police Department (BPD)

Crime heat maps were generated in ESRI ArcGIS 10.6.1 using the kernel density tool. The database of crime incident reports was provided by the BPD (from August 2015 to date), downloaded from the Analyse Boston website. The streetlight locations were also downloaded from the Analyse Boston website and were provided by the City of Boston's Street Lighting Division of Public Works.

Crime data analysis is relevant to the public realm and can provide valuable insights into urban patterns such as street cleanliness, vacancy and neighborhood change. Nevertheless, criminology is a discipline characterized by deep disagreements what makes crime data analysis a difficult task. In the interviews help with elderly residents of Chinatown, security was appointed as an issue for this particular group. One interviewer also mentioned crime such as robbery happening in darker corners or places where people don't usually walk during the night. Maps showing aggravated assault, robbery, disorderly conduct, and drug violation were overlaid with streetlight maps to triangulate the information given by residents with data provided by the city of Boston on crime incident reports and streetlights. The graph below shows the number of offense types in 2018 divided in the days of the week for the A1 Police District that comprises downtown Boston. Larceny is listed as the majority of the incidents, accounting for 40% of the total incidents in 2018.

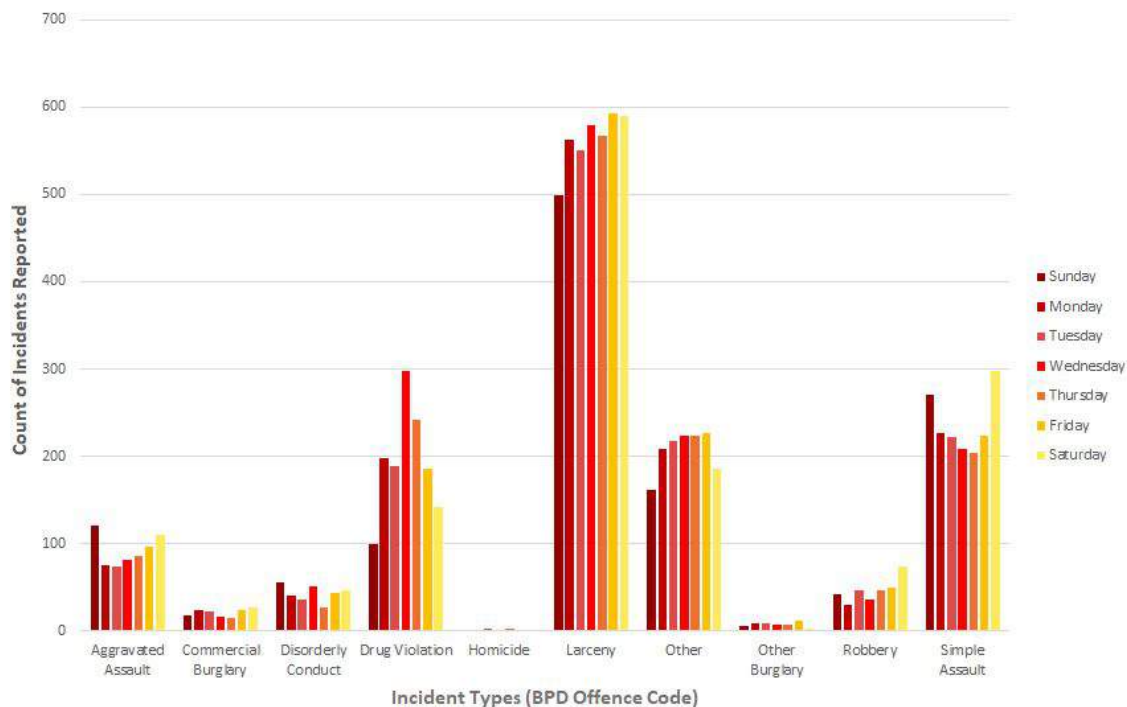


Figure 24: Larceny is the most common type of crime, followed by simple assault and drug violation. The count of incident types according to BPD offense code was divided into the days of the week. (Boston Police Department, 2018).

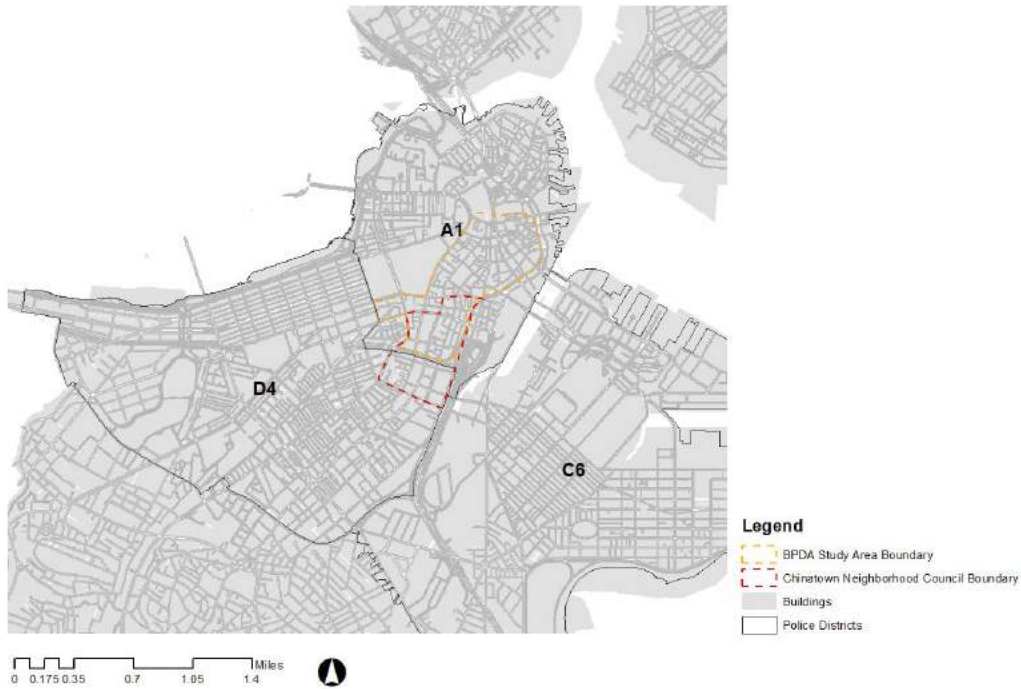


Figure 25: Boston Police Department Districts. Source: Analyse Boston and Boston Police Department (2018).

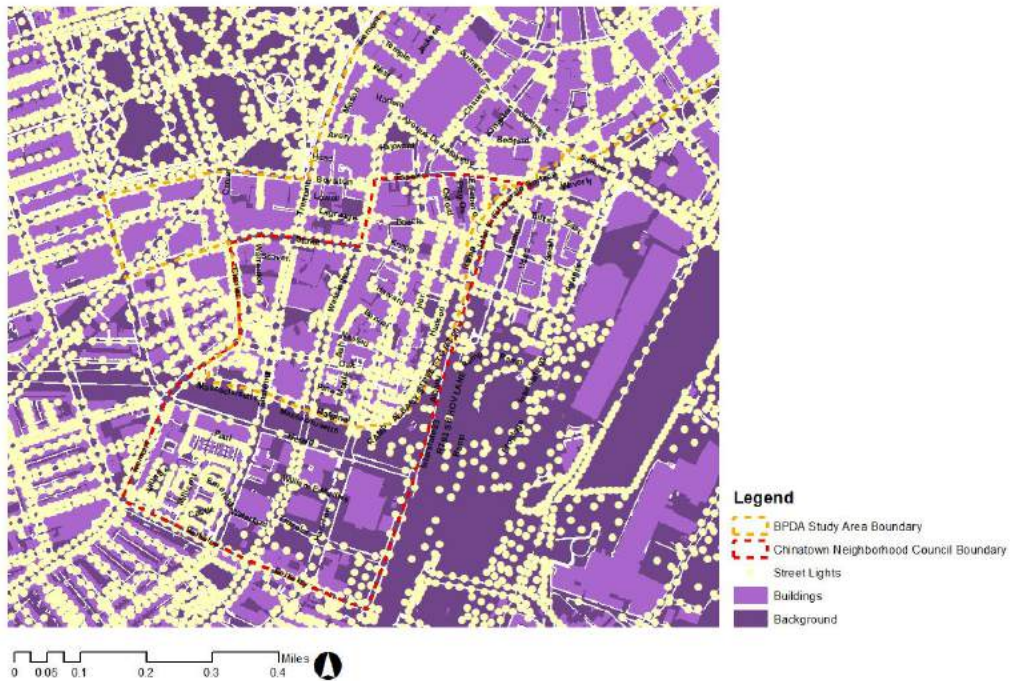


Figure 26: Streetlight were mapped using the locations provided in the dataset. A buffer diameter of 3m was used to show the provided lighting range on the ground. Source: City of Boston's Street Lighting Division of Public Works (2018).

Street lighting is integral to the health of a community. While research on the effects of improved street lighting on crime rates is not entirely definitive, an analysis of eight different studies found that improved street lighting—either through more lights or brighter lights—reduced crime by an average of 7% (Triplett & Gainey, 2007). With improved visibility, potential offenders are more exposed and less likely to commit crimes. Enhanced lighting can signal more community investment, pride, and cohesiveness, which also can discourage crime. Streetlights do more than prevent crime. Improved street lighting can make a community feel safer. They allow safer operation of vehicles at night, reduce accidents, and assist traffic flow. Better light can also promote the nighttime operation of businesses and increase pedestrian street use after dark, all of which leads to a more active, enhanced neighborhood.

Through a simple observation of the Chinatown street lights data, it appears that lighting is extensively covered in the community as we don't see clear "dark spots". However, through our interviews with residents, elderly members expressed being worried about robbery and crimes happening after dark, especially in so called "quiet areas". Through a deeper analysis, we can infer a clear relationship between street light outage and crime (using data from 2017 and 2018). The corner between Charles St. and Stuart St. is a spot for more close investigation. According to Figure 20 (on page 21), community members frequently complain about outage. A comprehensive historical analysis of different types of crime was not performed in this study, but could be used to assess a relationship between recent changes to the surrounding built environment, street lighting, and crime.

Over the next few pages, there is a series of kernel density maps for various types of crime that were of interest: aggravated assault and homicides incidents, robbery incidents, arrests for disorderly conduct, and drug violation incidents. The kernel density data is shown within community boundaries, first, and then overlaid over street lights data in an attempt to verify a visual correlation between dark spots and crime.

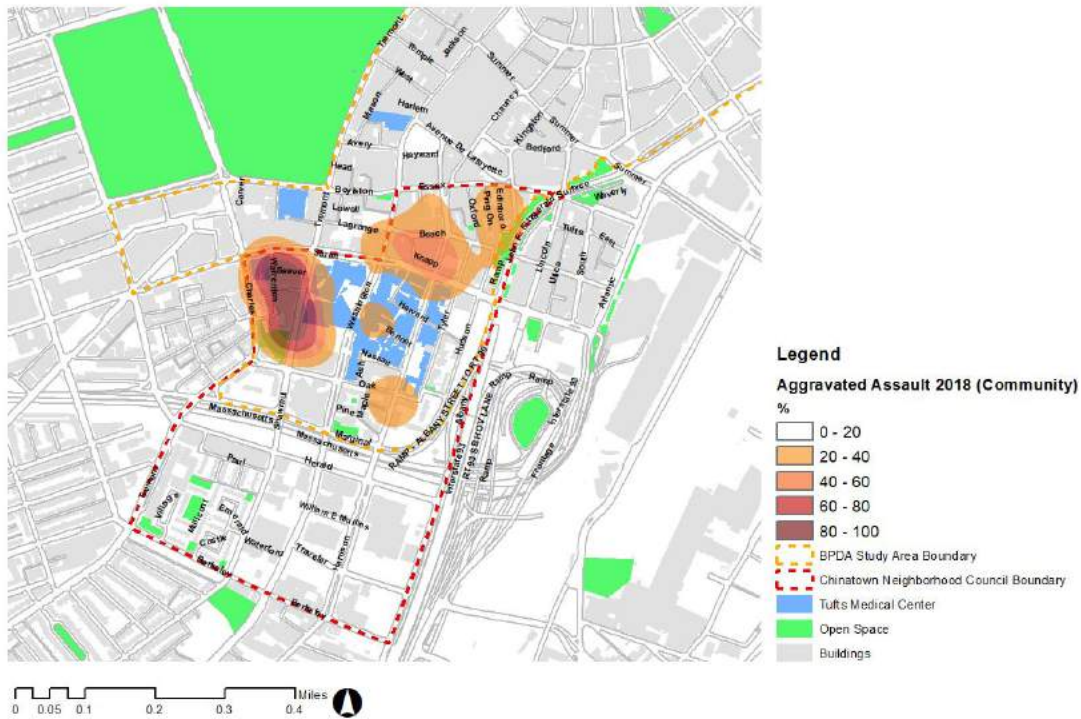


Figure 27: Kernel density map for aggravated assault and homicides incidents within the community boundaries. Source: Boston Police Department (BPD), January to December 2018.



Figure 28: Aggravated assault kernel density maps overlaying the streetlight location map. Source: Boston Police Department (BPD) and City of Boston's Street Lighting Division of Public Works (2018).



Figure 29: Kernel density map for robbery incidents within the community boundaries (robbery, commercial burglary, and larceny). Source: Boston Police Department (BPD), January to December 2018.

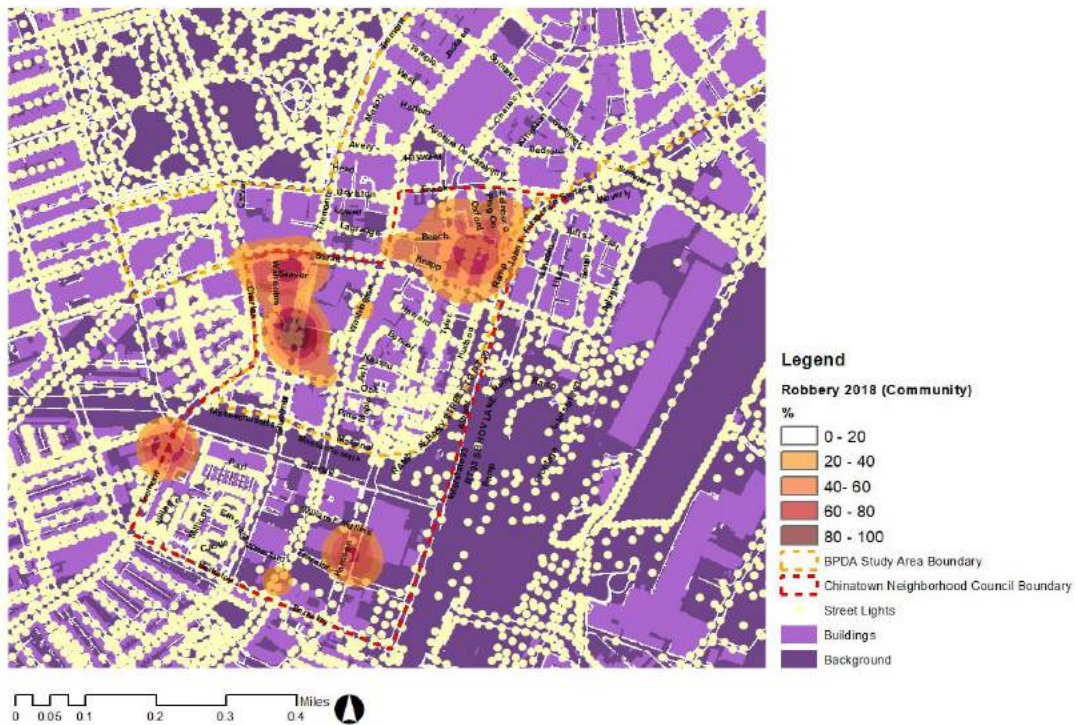


Figure 30: Robbery kernel density map overlaying the streetlight location map. Source: Boston Police Department (BPD) and City of Boston's Street Lighting Division of Public Works (2018).



Figure 31: Kernel density map of arrests for disorderly conduct within the community boundaries. Source: Boston Police Department (BPD), January to December 2018.

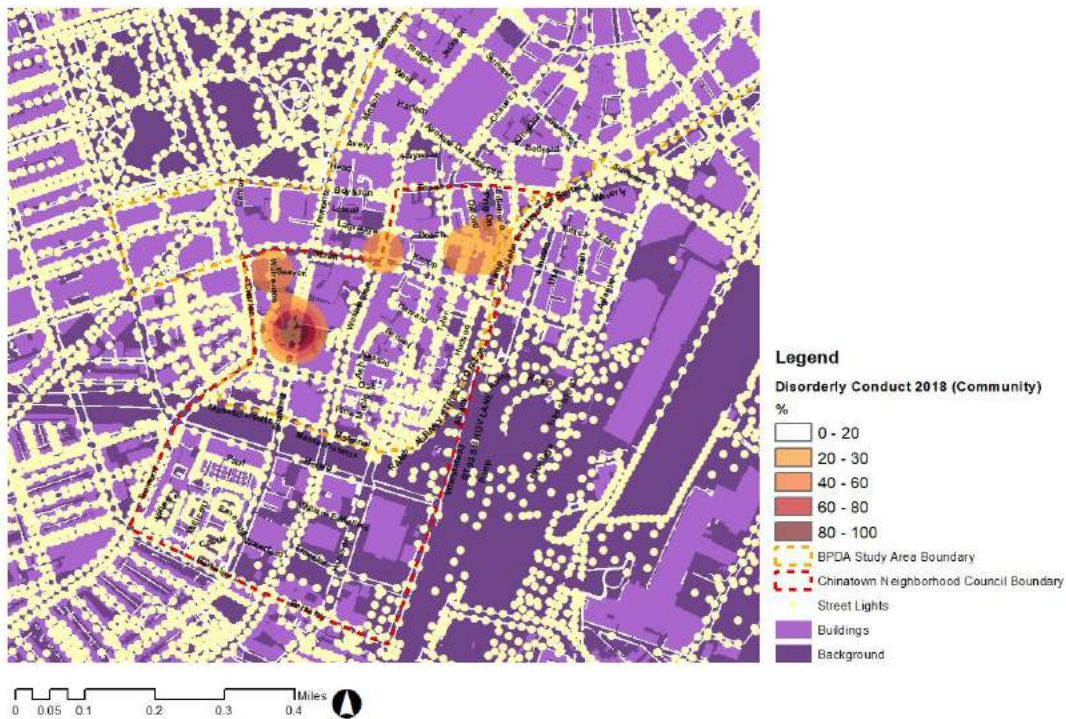


Figure 32: Disorderly conduct kernel density maps overlaying the streetlight location map. Source: Boston Police Department (BPD) and City of Boston's Street Lighting Division of Public Works (2018).

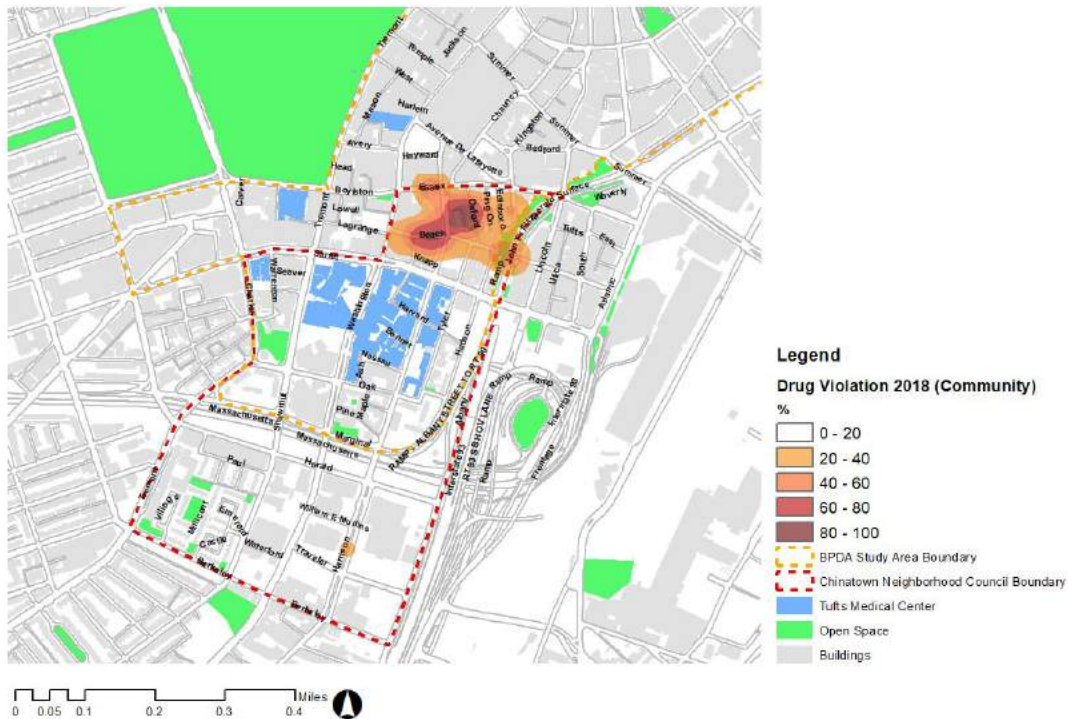


Figure 33: Kernel density map of drug violation incidents within the community boundaries. Source: Boston Police Department (BPD), January to December 2018.

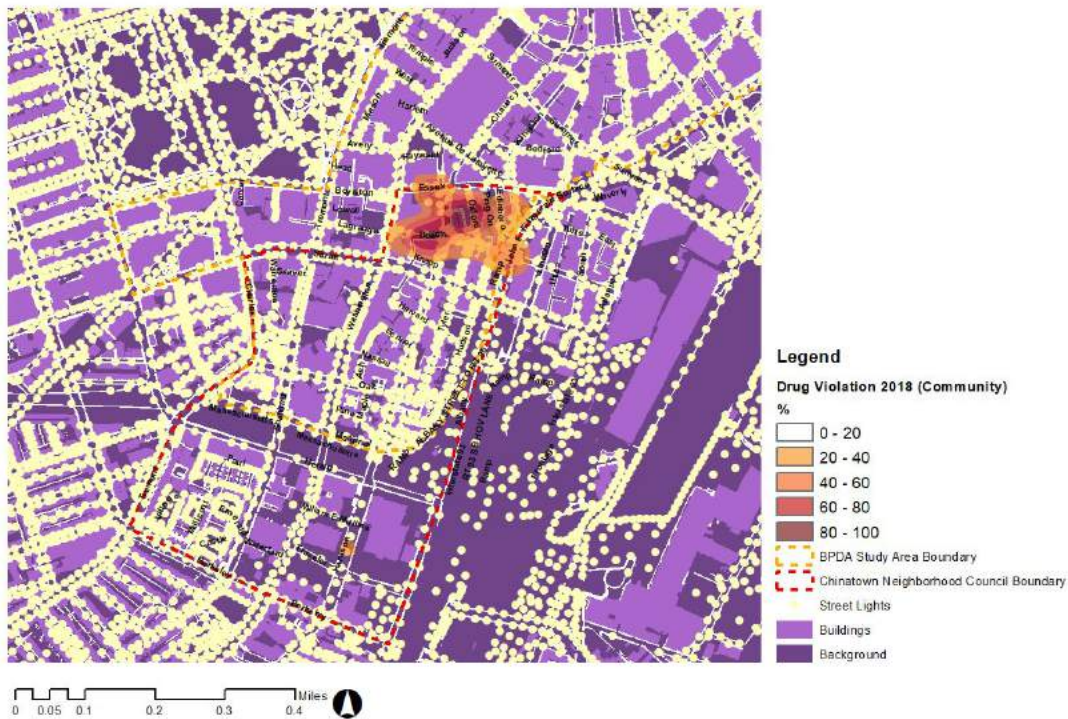


Figure 34: Drug violation kernel density maps overlaying the streetlight location map. Source: Boston Police Department (BPD) and City of Boston's Street Lighting Division of Public Works (2018).

Air Quality

With its close proximity to multiple busy interstate highways and the high prevalence of smoking among neighborhood residents, Chinatown faces significant concerns with excessive asthma and lung cancer.

Unfortunately, since 1994, the Boston Public Health Commission (BPHA) has embedded Chinatown health data within its larger reports of the South End. Disaggregating health data for Chinatown from the neighborhood-specific reports has been beyond the capacity of community organizations, data users, and even for the Tufts Medical Center (Tufts, 2016). Thus, similar to prior stakeholders, we relied on information from BPHC's periodic reports on the health of Asians across the city.

Moreover, the team's qualitative identification of lung diseases as a top health concern from attended community meetings matches the results from other prior health studies of Chinatown. For example, as part of its recent 2016 Community Health Needs Assessment, Tufts Medical Center identified cigarette smoking, lung cancer and associated health risks as the top health concerns for Chinatown (Tufts, 2016). In fact, the Boston Public Health Commission has regularly identified lung cancer as the leading cause of death among Asian Americans in Boston (BPHA, 2017). Therefore, preventing lung cancer is a major priority toward improving overall health outcomes in Chinatown. Community leaders and stakeholders can address this critical health concern by launching health education campaigns on smoking, promoting smoking cessation programs, disincentivizing smoking in the public realm, and adopting other public health strategies.

In terms of asthma, there is unfortunately also a dearth of disaggregated data at the neighborhood level. However, it is important to note that asthma rates for Asian American youth who attend Boston's public schools are about 1.3 times higher than for White youth who attend Boston's public schools (27% vs 21%) (BPHA, 2017). Although asthma cannot be cured, it can be controlled by avoiding asthma triggers, seeking proper medical care, and creating healthy environments that reduce exposure to poor air quality.

From the *China Concern Group*, a local newspaper in Chinatown, in 2015, the minority and low-income population are more likely to live near major roadways and heavy noxious industries. Therefore, they are more vulnerable to be exposed to high levels of car and truck exhaust, like smaller particulate pollutants or ultra-fine particles. This type of pollution poses a health threat to low-income and minority populations and contains invisible, odorless particles and gases such as carbon monoxide. Research shows that people near highways tend to have higher rates of heart disease, asthma, and lung cancer.

Given this situation, residents in Chinatown felt the urgent need to seek environmental justice and air-quality protection. In order to tackle this challenge, the Community Assessment of Freeway Exposure and Health Study (CAFEH) hopes to collaborate with local governments and organizations to develop several realistic strategies with the hope to propose culturally appropriate solutions.

Climate Change

Although climate change has numerous potential public health impacts (APHA, 2018), the main concern among community stakeholders is the potential impacts of sea level rise and flooding from storms. The series of maps on the next page displays the potential hazard associated with various amounts of sea level rise in Chinatown and neighboring communities. Overall, Chinatown is at risk of flooding if there is a sea level rise or a storm surge, in combination with sea level rise, that is equal to or greater than 7.5 feet. After zooming into potential flooding just in Chinatown (see Figure 35), it is interesting to note that the eastern and southern parts of the neighborhood, which are home to higher densities of small businesses and housing, are more likely to get flooded than the western part of the neighborhood, which is home to mostly institutional land uses.

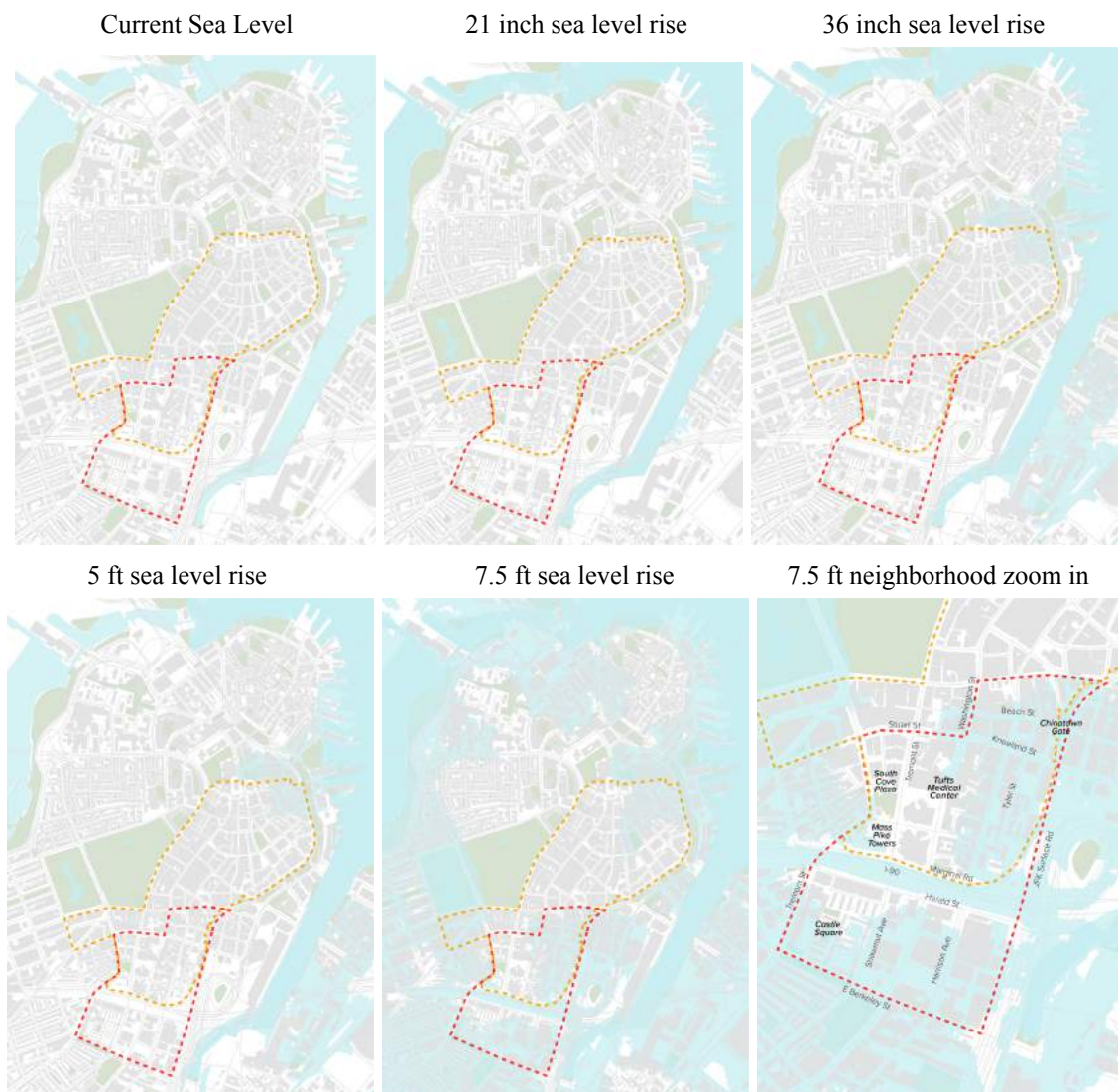


Figure 35: Eastern and southern Chinatown are most at-risk of flooding and sea level rise.

Walkability

A final concern among community stakeholders was the status of street infrastructure for pedestrians and the associated risk of pedestrian fatalities and injuries. According to the City of Boston's Vision Zero database, there were 18 reported motor vehicle crashes with pedestrians in 2017 (see Figure 36).

This high number of pedestrian injuries, especially in the northern part of the neighborhood, mirrors and can be partly explained by the high density of interactions at street intersections between pedestrians and vehicles in Chinatown. In fact, based off of traffic data from the City of Boston, thousands of vehicles travel through Chinatown every day and, particularly, thousands of pedestrians and vehicles travel across certain intersections in the northern part of Chinatown; most of which are along Kneeland Street (see Figure 36). It is important to note though that Beach Street has a low prevalence of use by vehicles yet a high prevalence of use by pedestrians (see Open Space chapter for further analysis).

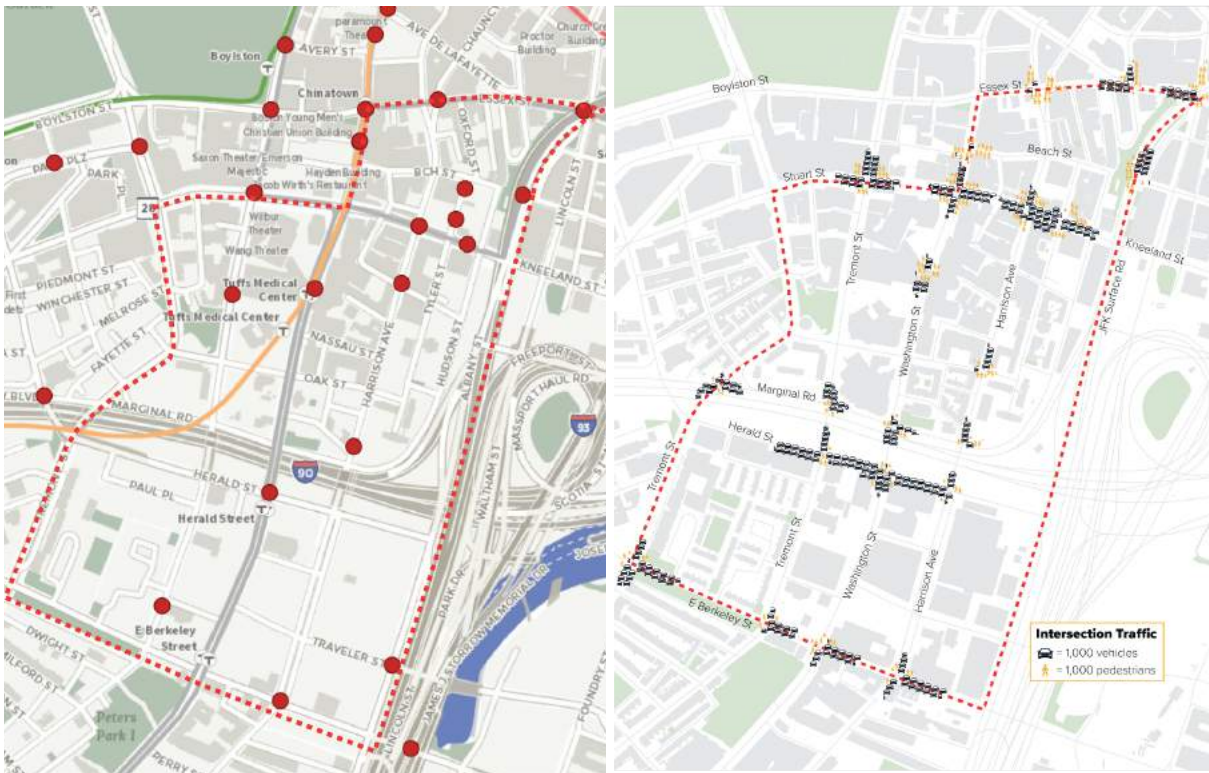


Figure 36: (Left) In 2017, there were 18 pedestrian crashes (red dots) in Chinatown. (Right) Vehicle and pedestrian counts at certain intersections in Chinatown between 7 am and 7 pm; based off of publicly available data. (City of Boston, 2018).

Despite the high vehicular traffic on Chinatown's streets, an analysis of commute mode share among Chinatown residents suggests they use alternative forms of transportation. As can be seen in Figure 37, over half of all workers (51.4%) in Chinatown walk to work as their primary mode of transportation. This rate is over three times higher than the 14.8% walking rate to work for the rest of the city.

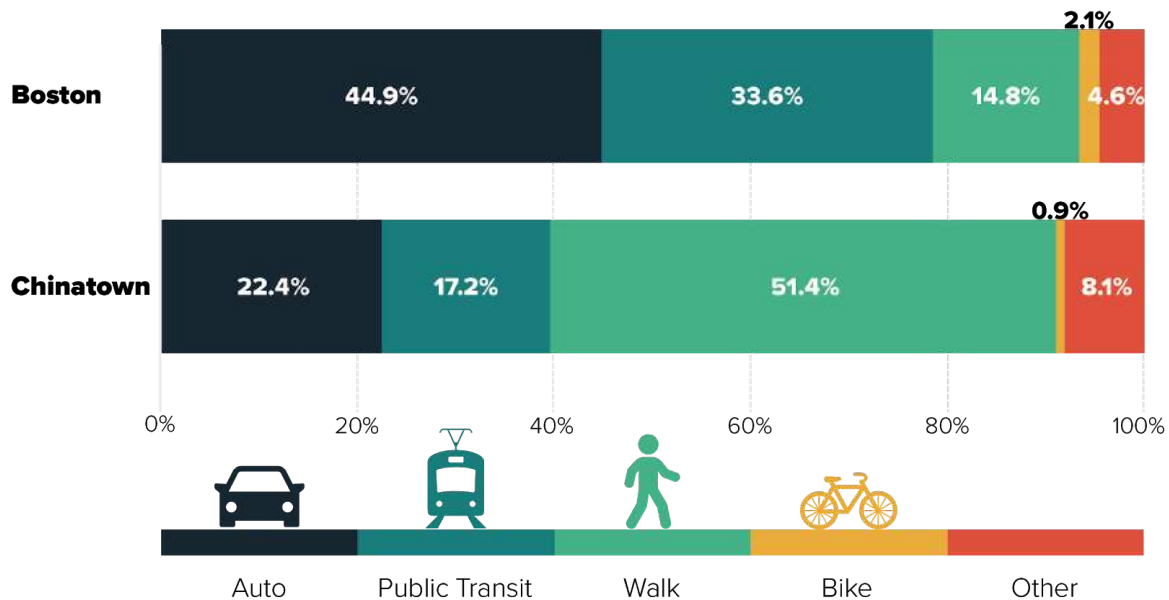


Figure 37: Transportation mode share for all workers 16 years old and older. The majority of all working Chinatown residents walk to work. (U.S. Census Bureau, 2018).

Moreover, in Chinatown's central census tract (Census Tract 702), 55.7% of all residents who are workers walk as their primary mode of transportation. This 55.7% rate is the fourth highest walking rate in the entire city and only trails the three census tracts in and around Boston University and Northeastern University (see Figure 38). Not accounting for these census tracts that are mostly college students who do not own vehicles, one can therefore argue that Chinatown has the highest pedestrian mode share among established Boston neighborhoods with long-standing residents.

Beyond simply not driving to work and instead opting for more sustainable modes of transportation, Chinatown residents also have high rates of non-car ownership. In fact, 61.6% of all Chinatown households do not own a vehicle. In comparison to the rest of the city, two of the three Chinatown census tracts have especially high rates of non-vehicle ownership (see Figure 38).

Therefore, all of this data suggests that the high volume of vehicles on Chinatown's streets are not actually Chinatown residents, but rather people from outside the neighborhood who are visiting Chinatown or who are using Chinatown's streets as a bypass on their way to other parts of the city. If the master plan renewal is to truly value the commuting needs of Chinatown residents and address their concerns, it is necessary to prioritize pedestrian

infrastructure over vehicle infrastructure. Unlike other neighborhoods in the city that are majority vehicle users and where reducing vehicle space is politically controversial, Chinatown is majority pedestrians and thus reducing public space for vehicles in order to expand space for pedestrians is more politically feasible.

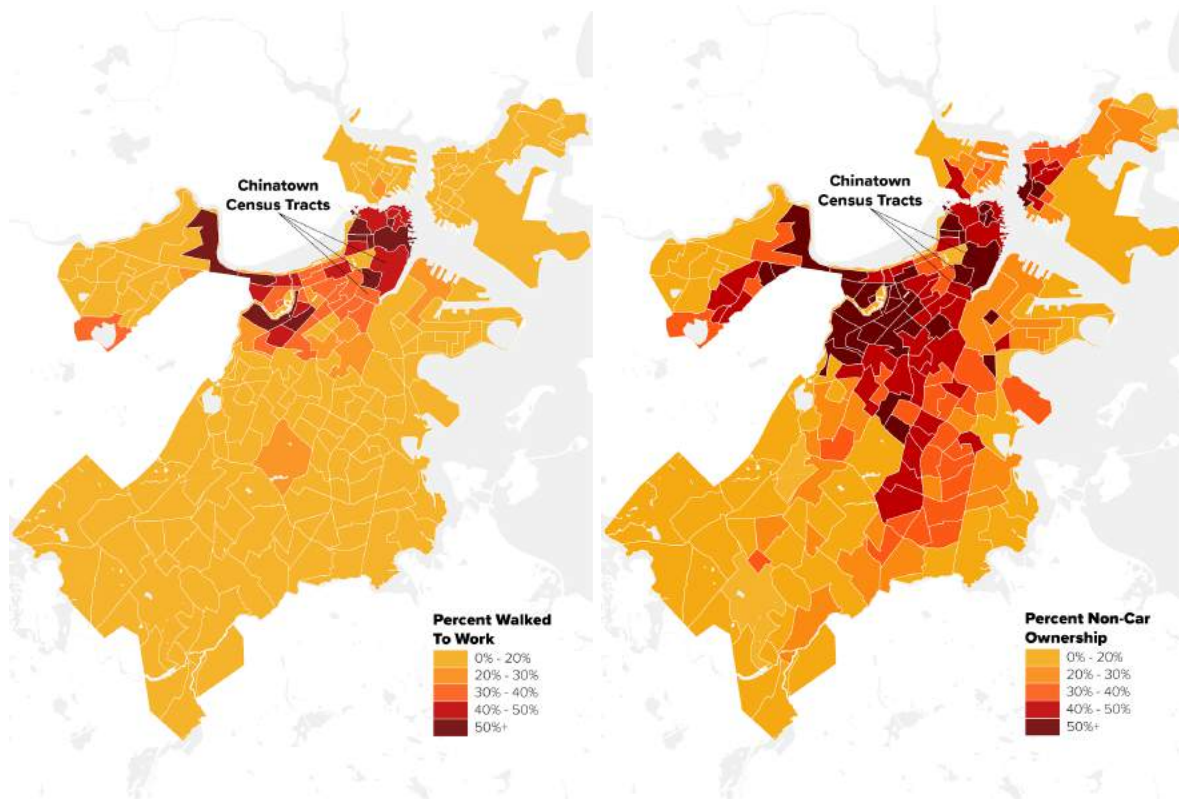


Figure 38: Chinatown has a far greater walking commute rate than the rest of Boston (Left) and is home to a high percentage of non-vehicle owner households (Right). (U.S. Census Bureau, 2018)

Summary

The quantitative data we collected to assess the current socioeconomic health of Chinatown mirrored concerns brought to our attention by community members themselves. Affordable housing, poor air quality, and noise, safety, and trash in private and public spaces weigh heavily on the health and happiness of the neighborhood and residents themselves. Other concerns also include climate change, pedestrian fatalities, and a lack of green and open space. The next sections of this report will further address the state of open space in Chinatown and offer suggestions to improve resident access to green spaces. We also offer recommendations for the development of the Master Plan to ensure a health lens is included.



OPEN SPACE

After hearing concerns about a lack of tree coverage and open space in Chinatown at the community meetings we attended and in our interviews with residents, and being asked to evaluate the Reggie Wong Park redesign process by the MAPC, we decided to investigate the state of open space in Chinatown. We researched the importance of open space and vegetation to public health, conducted an audit of all current open space in Chinatown, and investigated potential avenues for the city to increase Chinatown's share of open space and vegetation. We concluded that six avenues for open space expansion and improvement in Chinatown are relocating Reggie Wong Park to a parcel with better air quality, adding green space and open space to odd-shaped and leftover parcels, adding green space and open space to city-owned parcels, improving sidewalk conditions en route to existing parks, purchasing houseplants for neighborhood residents, and closing down a road to motorized vehicle traffic.

The Importance of Open Space

“Open space” is a broad category, encompassing everything from a grassy pocket park to a paved basketball court. These spaces, though quite different, enhance the health of neighborhoods by providing residents with places where they can socialize, participate in active recreation, or enjoy nature.

Open space that contains vegetation is of particular importance to public health, as exposure to nature has been linked to many positive health outcomes, and trees and other plants mitigate flooding and the urban heat island effect.

Exposure to vegetation leads to improved health outcomes like lower mortality rates, more physical activity, healthier birth weights, and decreased symptoms of depression (Fong, 2018).

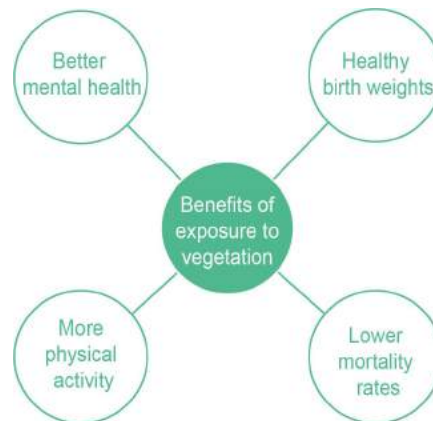


Figure 1: Benefits of exposure to vegetation

Trees counteract the urban heat island effect, a phenomenon in which dense urban neighborhoods experience temperatures higher than suburban and rural areas in the same region. The urban heat island effect is due in part to the number of dark surfaces in urban centers, which absorb heat (Mohajerani 2017). Vegetation mitigates this effect because trees provide shade, and grassy surfaces do not absorb heat to the extent that asphalt does. This mitigation of the urban heat island effect is important because extreme heat can lead to heat stroke or exacerbate existing medical conditions. The threat is elevated for older adults, who make up over 13% of Chinatown’s population (ACS).

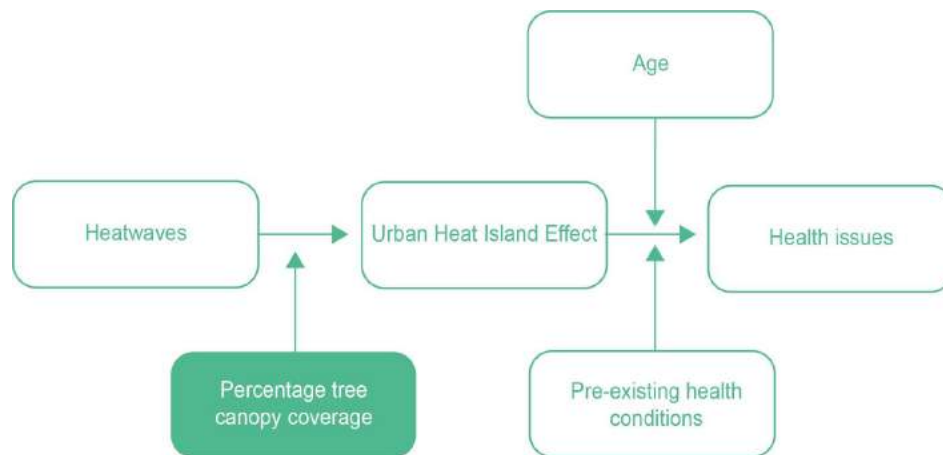


Figure 2: Tree canopy coverage and the urban heat island effect (see Mohajerani 2017)

Planted areas also mitigate flooding, which can lead to both direct adverse health impacts like drowning and electrocution as well as indirect ones like illness suffered because of exposure to mold or contamination in the water supply.

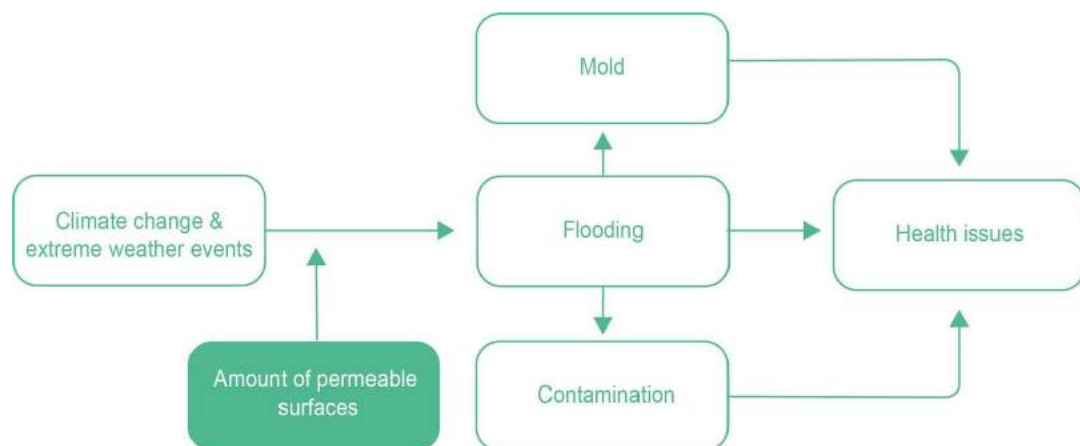


Figure 3: Permeable surfaces and health outcomes from flooding

While green spaces have an important impact on public health, other types of open spaces are also important to health and to community-building. Places where children can play and community members of all ages can socialize or participate in active recreation enhance a neighborhood even if they do not contain vegetation, so it is important to avoid focusing solely on spaces that contain plants when analyzing a neighborhood's access to open space.

In our open space audit of Chinatown, we looked at open spaces both paved and planted and found little public open space and fewer trees than other Boston neighborhoods. As a result of the audit as well as feedback we received in our interviews, we developed proposals that would increase access to open space and vegetation in Chinatown.

One concern when producing our proposals was eco-gentrification. Open space increases property values, and this effect is most pronounced in areas near a central business district and in densely populated areas (Anderson 2006). One of the residents we interviewed noted that rents in Chinatown had increased dramatically since he was a child in the neighborhood thirty years ago and that the neighborhood had gone from one of the cheapest places to live in Boston to one of the most expensive. This increase in rents had, in his opinion, led to families doubling up in overcrowded conditions. Another resident we interviewed said that her son would like to live closer to her, but cannot afford to and lives in Quincy instead. Since high rent prices affect health through overcrowding and the dispersion of social networks, measures that would increase rents even more could hurt the very residents they aim to help.

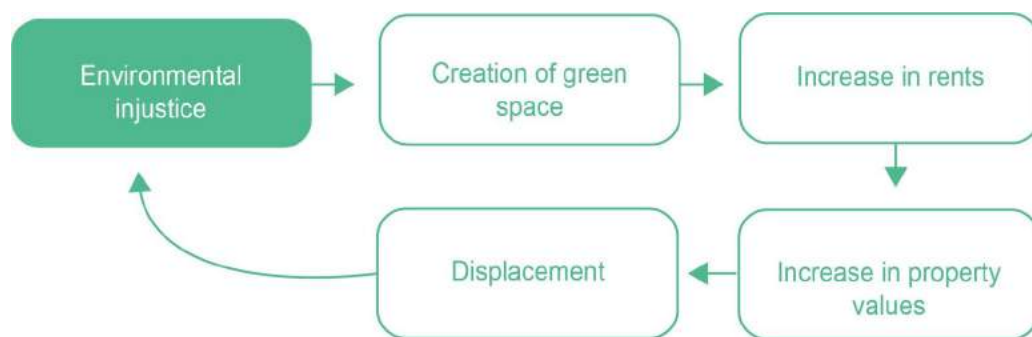


Figure 4: Eco-gentrification diagram

People of all income levels deserve access to high-quality open space. Planners and public health officials must advocate for underserved neighborhoods to receive their fair share of green space; however, they must also incorporate mechanisms to preserve affordability so that low-income residents are not displaced in the wake of those improvements. We prioritized strategies in our recommendations that would maximize the public health benefits of open space while minimizing its displacement effects.

Tree Coverage and Open Space Audit in Chinatown

Residents at the community meeting we attended brought up the lack of trees in Chinatown as an issue detrimental to the walkability of the area. Their perception that Chinatown has less tree cover than other Boston neighborhoods is born out in the data, which shows Chinatown has just 6.2 trees per acre within the current Chinatown Neighborhood Council-defined borders, while Bay Village has 10.2, the South End has 11.1, and Back Bay has 10.6.

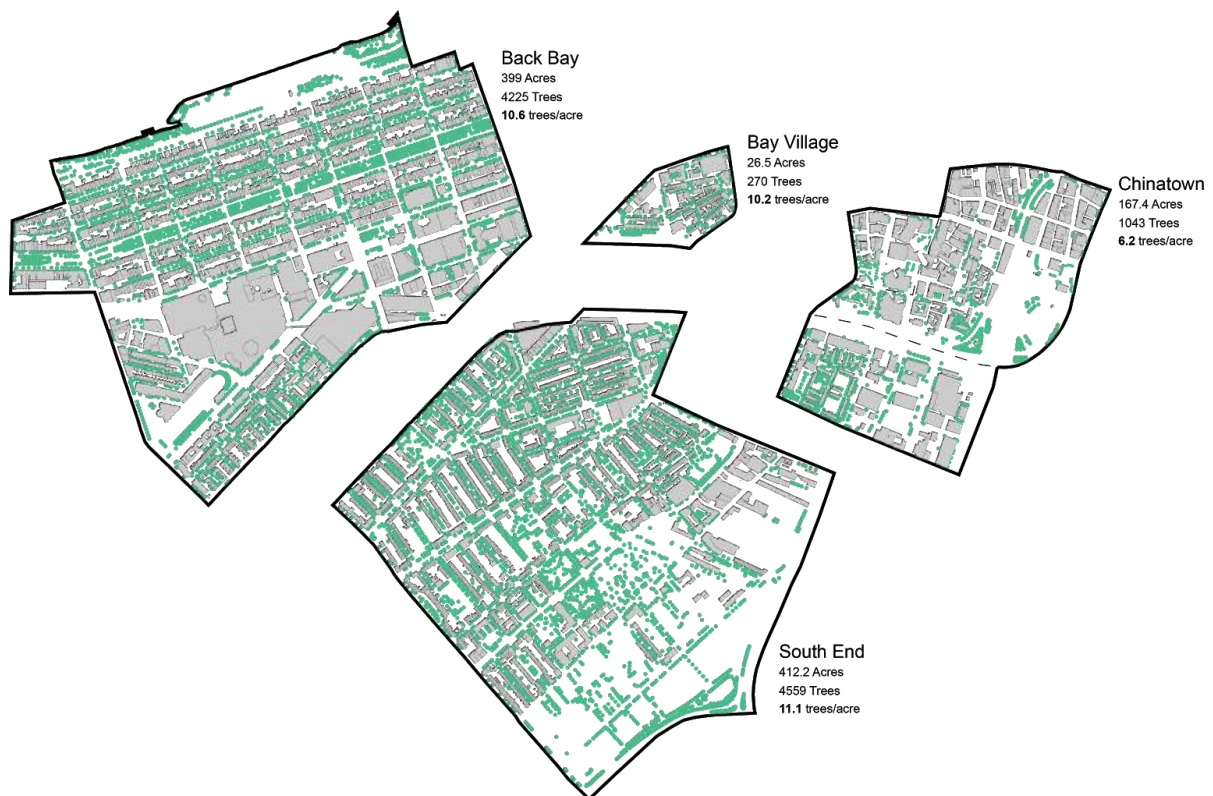


Figure 5: Tree counts in Back Bay, Bay Village, Chinatown, and the South End (Boston Open Data)

As for open space, Chinatown has few parks. Some parcels that appear as open space in Boston GIS files are actually inaccessible by the public, either because they are private courtyards or isolated by the highway like the I-93 interchange. The other two “open spaces” that appear in the GIS shapefile are both private courtyards and are not included in the following table of parks in Chinatown. The area of focus from here on out with regards to open space is of the intersecting area between the BPDA defined boundaries and the Community defined boundaries of Chinatown.

Park	Acreage	Use	Active/Passive	Public/private	Green space?
Chinatown Park	.75	Plaza and garden	Passive	Public	Yes
Mary Soo Hoo (Chinatown Gateway) Park	.082	Play equipment for children, open space and seating	Active	Public	Mostly paved, some trees
Tai Tung Park	.03	Play equipment for children	Active	Public	Astroturf
Reggie Wong Park	.35	Volleyball and basketball	Active	Public	No
Eliot Norton Park	1	Greenspace and play equipment for children	Active	Public	Yes
I-93 Interchange		Unusable		Public but inaccessible	Yes
Quincy Upper School basketball courts		Basketball	Active	Public but limited access (school site)	No

(Sources: Information on use derived from resident interviews; information on green space from direct observation)

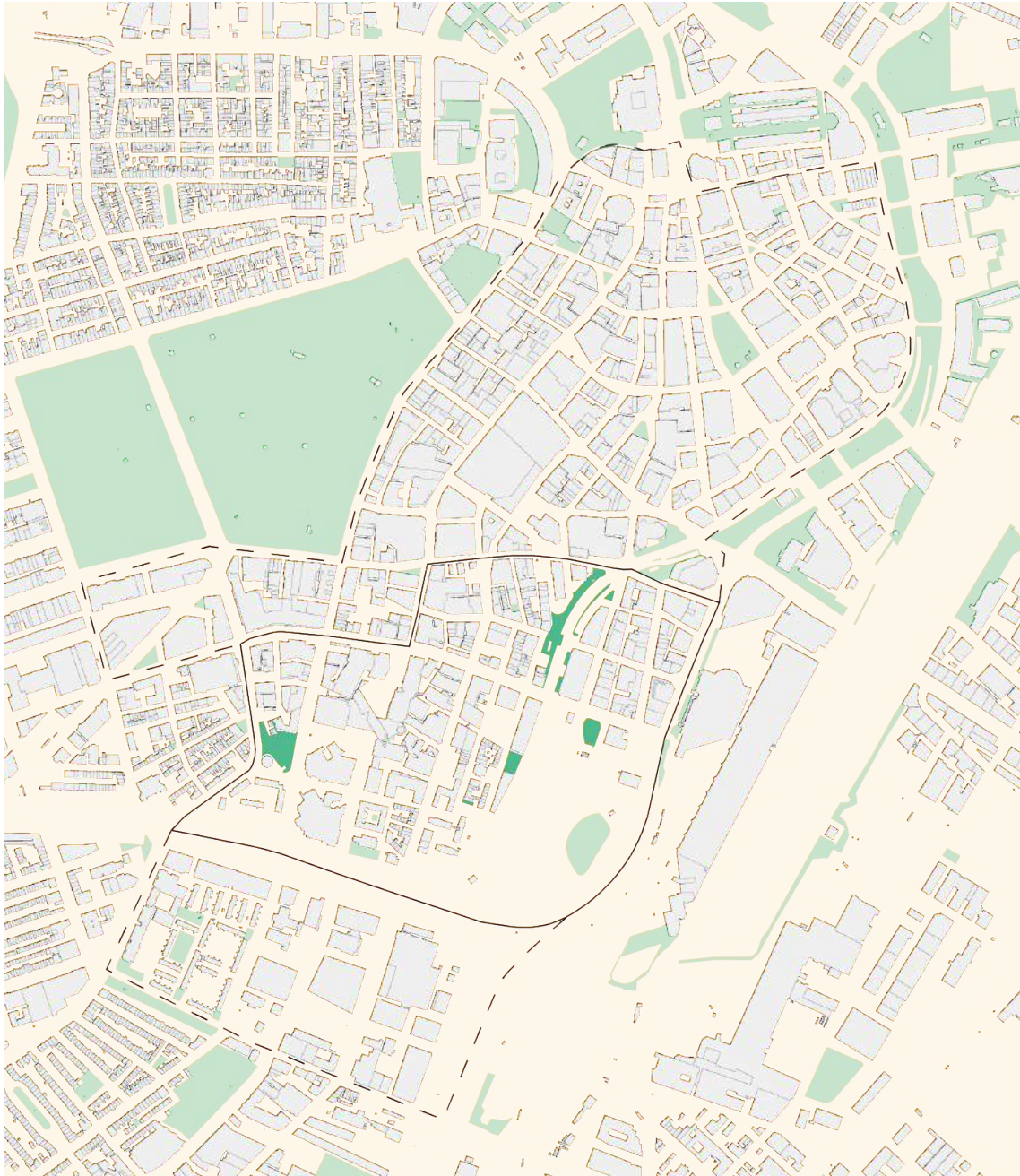


Figure 6: Open Space within and around Chinatown (Boston Open Data)

Of Chinatown's main parks, few contain significant green space. The Chinatown Park, a portion of the Rose Kennedy Greenway, is a paved walkway with a border of bamboo and other plants. It borders on Mary Soo Hoo Park, which is also primarily paved. Reggie Wong Park is also paved and will be examined more fully in the next section of this report. Tai Tung Park, a small pocket park, appears green at first glance but is actually carpeted in Astroturf; we do not know whether this material provides some of the same mental health benefits as actual plants, but it certainly does not provide the drainage benefits.



Figure 7: Chinatown Park (Maura Barry-Garland)

These “non-green” parks serve important roles; on our two site visits, we observed people gathering in Mary Soo Hoo Park to talk and play games. Reggie Wong Park is used by the local volleyball league, and Tai Tung Park has play equipment for children.

The only park in Chinatown to contain significant green space is Eliot Norton Park, yet this space is not even within the BPDA-defined boundaries for Chinatown. Although none of the residents we spoke to knew this park by name, the two who lived in a senior housing residence next to it said that they and their neighbors often spent time there.

Our open space audit found few public open spaces in Chinatown, and fewer still that featured plant life. According to the residents we interviewed, this is a key area of improvement for quality of life in the neighborhood. One process aimed at improving Chinatown’s open spaces is already underway; the Reggie Wong Park redesign process seeks to transform one of the neighborhood’s few outdoor active recreation spaces into a healthier asset for the community.

The Reggie Wong Park Process

The Reggie Wong Park is a .35 acre park located near the I-93 highway and by a power plant. It is one of only two parks in the neighborhood and is used primarily by Chinatown’s volleyball and basketball players. The Reggie Wong Park redesign process is an effort to plan improvements to the park that would reduce exposure to pollutants and make it a better asset for community members. The design process has lasted two and a half years so far and has involved two Tufts studies on air quality, a design charrette, and a community engagement process culminating in a workshop with current users.

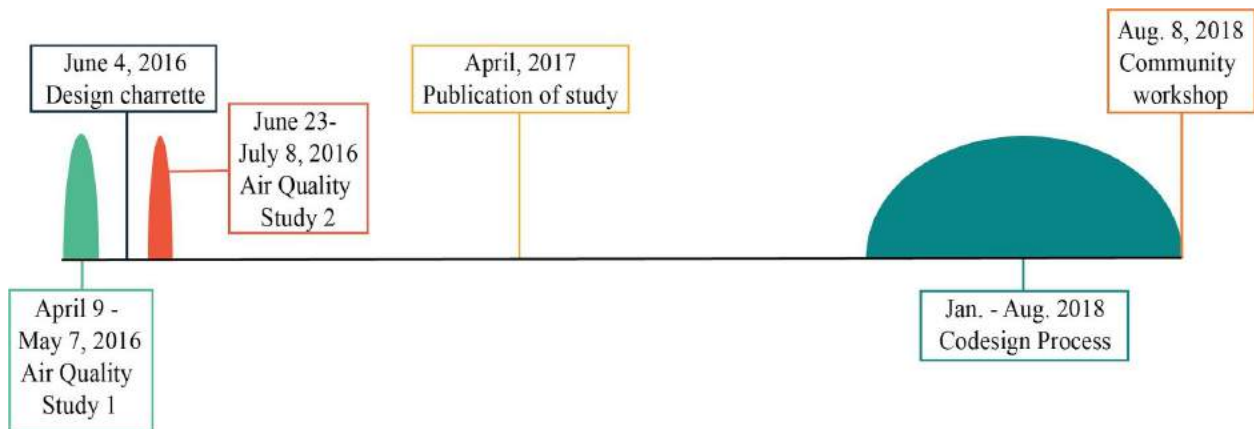


Figure 8: Timeline of the Reggie Wong Park redesign process thus far

Between June 23 and July 8 in 2016 and again between April 9 and May 7, Tufts researchers conducted a study on air quality at Reggie Wong Park. One of the 21 days studied in spring showed higher levels of $PM_{2.5}$ than recommended by the NAAQS standards. Although these results indicate that levels of $PM_{2.5}$ and other pollutants at Reggie Wong Park are in healthy ranges most of the time, even the occasional incidence of $PM_{2.5}$ levels above the recommended level is dangerous as this is a site of basketball and volleyball games and air pollution is especially harmful during heavy cardiovascular activity (Ambient, 2018).

In a design charrette held on June 4, 2016, residents reimagined development of Reggie Wong Park around three outcomes: 1) protection of park visitors from air pollution; 2) connection to the park and its identity to the surrounding neighborhoods; and 3) development of park services for community members.

In April 2017, a team of Tufts researchers and Lydia Lowe of the Chinatown Community Land Trust published “Improving Health in Communities Near Highways: A Study of the Reggie Wong Park in Chinatown”. The report recommended using a building as a barrier to the I-93 and making the park partially indoors so that community members participating in team sports could do so protected from air pollution. Additional ideas in the report included relocating the park to a parcel next door, adding a green connector, and providing images and information on Reggie Wong’s story. A final idea was to construct a library on the site and have the park be on its roof, thus separating users of the park from harmful air pollution (Simon, 2017).

The codesign process was started in January 2018 as a joint effort of a Tufts University team, the Chinatown Community Land Trust, Olin College of Engineering, and the consultancy firm Linnean Solutions. On August 8, 2018, a workshop was held to present the results of the codesign process so far to community members and gather more feedback (Brugge 2018). It is difficult to evaluate the success of this process before it is complete, but strengths so far have included having bilingual workshops with slides and translation in two

languages, as well as heavy engagement of current users in the design process. This reimagining of Reggie Wong Park has the potential to greatly enhance the park's contributions to public health. Since it makes up a significant portion of the total open space in Chinatown, this redesign process is important.

Date	Event	Strength	Question
April 9 - July 8, 2016	CAFEH study on air quality	Gathering data to inform decision-making	Is this a good site for outdoor recreation? Can it be made one? Or should the courts be relocated elsewhere in the neighborhood?
January - August 2018	Co-design process	Translated slides and translator at all meetings	
August 8, 2018	Co-design workshop	Invited current users (volleyball teams) to actively participate in the design	Why weren't potential users invited along with the current users?

Open Space Possibilities for Chinatown

Enhancing Reggie Wong Park

Chinatown has few outdoor active recreation sites, but many residents involved in volleyball leagues. Reggie Wong Park is an important asset and its health impacts could be made more positive by relocating it within the neighborhood to a parcel farther from sources of emissions. Our recommendation for the relocation can be found in the next section.

Adding Open Space to Odd-Shaped and Leftover Parcels

Tai Tung Park is an example of a pocket park that makes efficient use of a piece of land so small that many would have overlooked it. While Chinatown is a dense neighborhood, it still contains many odd-shaped and leftover parcels that could be converted to additional pocket parks, including ones with live vegetation

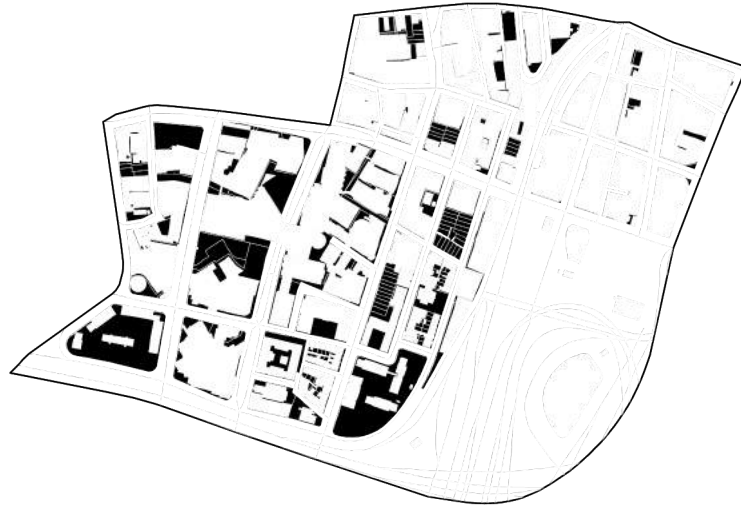


Figure 9: In black: Lot land that is unused and unobstructed (Boston Open Data)



Figure 10: Reggie Wong Park and proposed parking lot for conversion. (Google Maps)

The majority of these parcels are ground level parking lots, which currently create less walkability and an increased urban heat island effect and flood risk. The ideal solution would be to implement a more consolidated form of parking to allow portions of these lots to be converted into green or active recreation space. At a minimum, more tree coverage could be added to the parking lots to mitigate the heat effects, retain stormwater, and improve the experience at street level.

A potential site for a new park is the parking lot bordered by Hudson St., Harvard St., and Tyler St., which is about a block away from Reggie Wong Park. The lot is larger in acreage than the currently used portion of the park and it is much better protected from vehicle emissions. This could be an ideal place to relocate the active functions of the park.

Adding Vegetation to City-Owned Sites

Boston could adopt policies to encourage non-government landowners to add vegetation to their sites. However, it's easiest for the city to plant on sites owned by government entities. For this reason, the Eva White BHA site and the Josiah Quincy school complex are two promising sites for added planting.

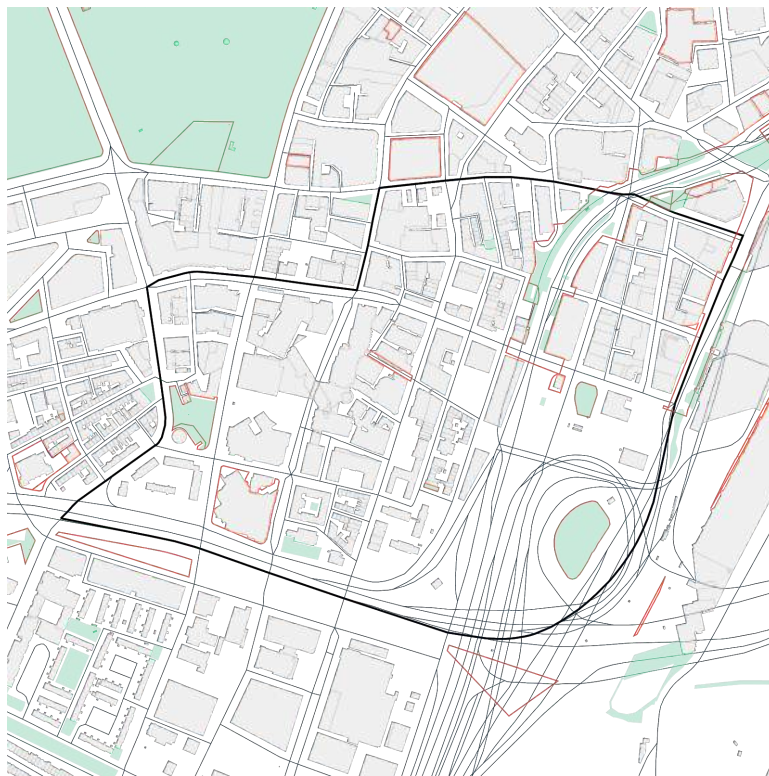


Figure 11: City-owned parcels: outlined in orange (Boston Open Data)

The Eva White building is a Boston Housing Authority residence for older adults. It is located within the community-defined limits of Chinatown but outside of the BPDA-defined

limits. It currently has a courtyard that is primarily paved but has some green features including trees and planters.



Figure 12: Eva White courtyard (Mariana Pereira Guimarães)

Adding green improvements on a public housing site has less of a potential to cause displacement than does adding green improvements in a neighborhood with no permanently subsidized housing, as public housing residents will not have to pay higher rents even if property values increase. In addition, planting additional trees on a public housing site for older adults targets the benefits of vegetation like flood mitigation, improved mental health, and reduction in the urban heat island effect, to those most vulnerable to negative health outcomes due to age and socioeconomic status.

The Josiah Quincy School is an elementary school on a city-owned block that also contains apartment building Quincy Towers and nonprofits including a church and the Boston Center for Youth and Families. Adding more trees and green elements to this school site could be beneficial for the health and learning quality of the students.

Improving Sidewalk Conditions en Route to Parks

In order for residents to benefit from parks, they must be accessible and be perceived as safe to reach. The three residents we interviewed all said that they or their friends walked to Boston Common in the summer. However, one of the older residents we spoke to said she is no longer walking outside as much due to health concerns, and all three remarked that sidewalk conditions in the neighborhood were poor. In addition, one mentioned that the timing of crosswalks made it nearly impossible for older adults to cross streets before the walk sign

disappeared. As older adults struggled with crosswalk timing, it is likely that parents of young children and people of all ages who use mobility aids also cannot cross the streets in time.

Improving pedestrian conditions near parks could allow parents to feel safer sending their children to play in parks, and would allow people of all ages and abilities to access open space. An improved pedestrian experience could allow more children and adults to go to Eliot Norton Park or Boston Commons and experience the benefits of exposure to green space.

Signage is also important in making parks accessible to residents. Although two of the residents we spoke to used Eliot Norton Park, neither knew its official name. While Tai Tung Park, Mary Soo Hoo Park, Reggie Wong Park, and Chinatown Park have bilingual signs and names that reflect the cultural history of the neighborhood, Eliot Norton Park has neither. Introducing bilingual signs could make this park a more significant part of residents' mental maps of their neighborhood and could encourage more use.



Figure 13: Bilingual versus monolingual signage (Juan Reynoso)

Closing a Street to Motorized Vehicles

At first, Chinatown may seem like a neighborhood that lacks opportunities to add significant public open space, as it is already so densely developed. However, that initial analysis ignores the significant area of the neighborhood currently dedicated to motorized vehicle traffic despite only 22.4% of residents driving to work (see the Pedestrian Safety section in the Background Data chapter of this report). If even a few blocks of a single road were closed to motorized traffic, not only would new public space be created, but users of the space would be better protected from emissions and traffic accidents.

At a board meeting of the Chinatown Land Trust on October 29, 2018, a resident remarked on the amount of traffic that is channeled through Chinatown, sarcastically saying “That’s what we’re here for.” Chinatown was disrupted in the 1950s by the creation of the John

F. Fitzgerald Expressway, but it is more than a route for the Greater Boston Area's traffic; it is a neighborhood, and the planning of the neighborhood should prioritize the needs of its residents before those of drivers making trips that neither start nor end in Chinatown.

Our background data group looked at street data in Chinatown to find streets with high numbers of pedestrians relative to the number of cars. Beach Street between Tremont Street and the Chinatown Gate has relatively little car traffic and a high amount of pedestrian traffic (see Figure X). By closing Beach Street, the City would reduce the risk of collisions between pedestrians and vehicles without significantly disrupting traffic flow.



Figure 14: Beach Street's high pedestrian use and low vehicular use makes it an ideal location for being re-designed into new public open space. (City of Boston, 2018)

Beach Street is also an ideal location for a road to be reclaimed by pedestrians because of the high number of small businesses in the area. Many of the Chinese restaurants and shops

that make Chinatown a destination for Chinese Americans in the Greater Boston area are located on this street. A road closure would allow residents to reclaim space from cars, and to shop and socialize with their neighbors without fear of being struck by a moving vehicle. It would also extend Chinatown Park, creating more public open space free from emissions and protected from traffic accidents.



Figure 15: Looking West down Beach Street from the Beach St. and Hudson St. intersection (Google)

Harrison Avenue could be kept open to motorized traffic as it is used by more motorists than any of the other connections on Beach Street. However, it is important that significant pedestrian protections (e.g. a raised intersection, bulb-outs, and flashing lights and signage) be added to the Beach and Harrison intersection in order to ensure safety. As the small businesses likely have delivery needs, and regular trash pickup is a priority of the local residents we interviewed, having certain hours of the night or early morning (i.e. 12-5am) when the otherwise closed sections of Beach Street are open to deliveries and trash pick-up could be beneficial.

The closure could start with a trial period, like Viva Calle in San Jose, in which motorized vehicle traffic was shut down on 6 miles of streets on October 11, so that traffic planners and residents could see how Chinatown and the wider area function with the road closures (Pizarro 2018). This temporary closure could be accomplished through the use of planters and chalk murals, and the reclaimed block could feature chairs and tables for talking and relaxing.

Houseplant Stipend

Houseplants cannot mitigate flooding and the urban heat island effect like outdoor vegetation can. However, indoor plants can reduce physiological and psychological stress (Lee, 2015). Residents of Chinatown spoke of neighborhood noise and high rents causing stress, so people living in the neighborhood are especially in need of stress-reduction resources. One affordable and effective way of increasing access to plant life for Chinatown residents would be a program in which houseplants are provided free of charge. The plants could be distributed at local schools as well as senior housing, affordable housing, and public housing residences. Children and other interested residents could be involved in the repotting process.

Summary

Both the quantitative data we gathered by mapping trees and parks in Chinatown as well as the qualitative data gained from attending meetings and interviewing residents revealed that residents of the neighborhood have less access to green space than do residents of other Boston neighborhoods. This lack of green space poses a problem both because of how it affects the daily quality of life and because it could exacerbate extreme weather events like flooding and heat waves that negatively impact public health. In order to increase access to green space and active recreation, we recommend a suite of improvements ranging from the simple and inexpensive like providing residents of affordable housing with indoor plants and adding vegetation to city-owned and odd-shaped lots, to more complicated but valuable efforts like relocating Reggie Wong Park to a site better suited to active recreation and closing a street to through-traffic.

BRA
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CHINATOWN

COMMUNITY PLAN

華埠社區整體計劃

A PLAN TO MANAGE GROWTH

MARCH 1990

BOSTON
PUBLIC
LIBRARY



CHINATOWN / SOUTH COVE
NEIGHBORHOOD COUNCIL

CITY OF BOSTON
Raymond L. Flynn, Mayor

BOSTON REDEVELOPMENT
AUTHORITY
Stephen Coyle, Director

PLANNING FOR HEALTH AND PLANNING FOR CHINATOWN

In order to better inform the healthy plan making process, we conducted a literature review of master plans in three categories: past Boston Chinatown plans; healthy plans from other cities; and Chinatown plans from across North America. This section includes our findings and recommendations for how these findings can inform the new Chinatown master plan.

Methods

As a foundation for our analysis, we reviewed past planning documents for Boston's Chinatown to understand scope, scale, and style. While the most recent neighborhood planning documents are available online from the Boston Planning and Development Agency (BPDA), we determined it would be critical to examine past plans because the most recent plan for the neighborhood was community-led. A wider-ranging list of resources including historical plans is available on the website of *Chinatown Atlas*, a collaboration between former MIT Department of Urban Studies and Planning (DUSP) head Tunney Lee, the Chinese Historical Society of New England, Chinatown Lantern Cultural and Educational Center, UMass Boston Institute for Asian American Studies, and many other community leaders and organizations. Original documents for older plans are available online through the Internet Archive, contributed by the Boston Public Library. We were ultimately able to access six past neighborhood planning documents, from 1965 to 2010. We analyzed these plans to understand who led the planning effort, how they incorporated Asian Americans, and which health priorities they incorporated.

We also examined examples of master plans from other cities that used a health lens in order to assess what elements should be included in a health-oriented Chinatown master plan. The most useful resources we found were three reports developed by the APA as part of a three-phase project that assessed the process for including public health in comprehensive plans (Hodgson, 2011; Ricklin & Musiol, 2012; Ricklin & Kushner, 2013). The three reports outline a summary of how comprehensive plans are currently used to promote public health, how effective these plans are, and include examples of best practices and frameworks for developing healthy, comprehensive plans. The APA included useful guidelines and frameworks, which we will discuss in detail below, that can be used in the upcoming Chinatown master plan. We analyzed two of these frameworks: a guide to health topics that are frequently included in healthy master plans and a nine component process framework that lays out key considerations when developing and implementing a healthy master plan. The final APA report also included case studies of 7 comprehensive plans that successfully implemented

public health into their goals and policies: Grand Rapids, MI, Philadelphia, PA, Baltimore County, MD, Dubuque, IA, Raleigh, NC, Chino, CA, and Fort Worth, TX. We highlighted the strengths and weaknesses of these seven case studies that can inform the development of a Chinatown master plan.

We also applied the healthy priorities framework from the APA report to a selection of neighborhood planning efforts from Chinatowns across North America. We initially identified which large American cities have historically had large Chinatowns and which continue to. It was difficult to assess the size of Chinatown neighborhoods across cities empirically because the percentage of Asian Americans in the population is not necessarily correlated to the dense clustering of the population. Because large Canadian cities also have historic Chinatowns, we broadened our scope to North America rather than just limiting our analysis to the United States. Ultimately Vancouver was the only non-U.S. city who had a posted neighborhood plan for its Chinatown. Along with Vancouver, our final sample of Chinatowns included Flushing West, New York City; Chinatown, Philadelphia; Old Town-Chinatown, Portland; Chinatown-International District, Seattle; and Chinatown, Washington, D.C. Large, historic Chinatowns such as Manhattan, New York, and San Francisco did not have active neighborhood plans though other planning efforts were taking place there. Since most of these plans were not explicitly focused on health, we used the healthy priorities framework to see which health concerns were addressed.

Healthy Master Plans in Other Cities

To inform best practices for developing healthy master plans, we used guidelines developed by the American Planning Association (APA). After conducting a national survey of local governments, the APA identified six major health topics that were most commonly included in comprehensive plans: active living, emergency preparedness, environmental health, food and nutrition, health and human services, and social cohesion and mental health. Each topic included a set of 2-4 subtopics (Ricklin & Kushner, 8). We also conducted qualitative interviews with Chinatown residents to determine which health topics they are most concerned with (Appendices 1 & 2). The diagram below illustrates how these issues map onto the APA health topic framework:

Resident Interviews Correspond to Health Topics (Topic Source: Ricklin & Kushner)

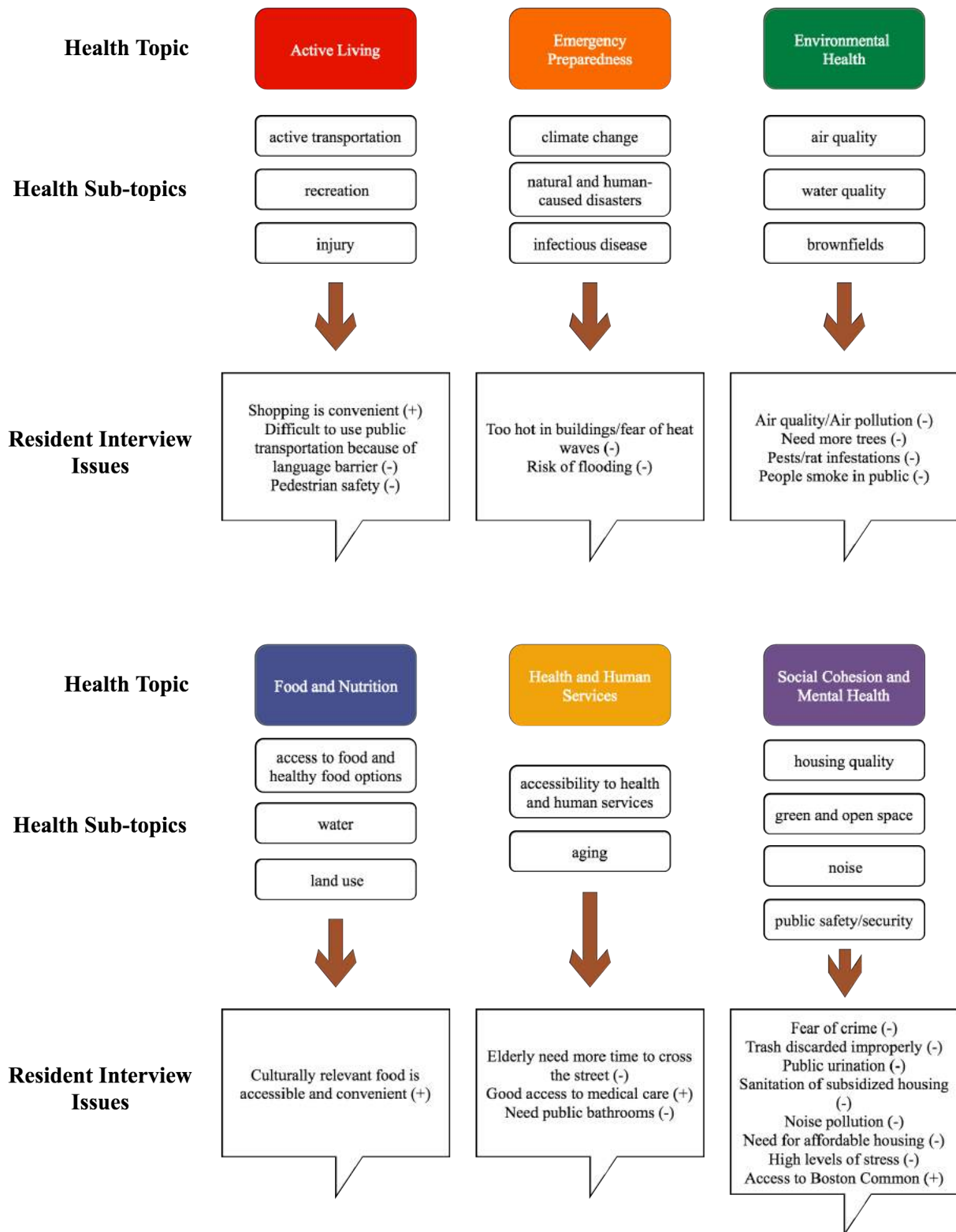


Figure 1: Resident interview issues were collected from interviews with Chinatown residents (Appendices 1 & 2) (+) indicates that residents have a positive association with this health issue; (-) indicates a negative association

Residents frequently cited concerns about air quality, noting the dust and grime that accrued on their windows and tables. Other topics that repeatedly came up were noise pollution, safety for elders, and the need for more affordable housing. On a positive note, residents expressed satisfaction with access to food, shopping, and medical care in Chinatown.

The APA reports not only highlighted major health topics that are commonly included in healthy master plans but also created a framework of elements that are critical to consider when developing a healthy master plan (Ricklin & Kushner, 13). These elements can be found throughout the entire plan making process, from developing key partnerships and identifying stakeholders, to conducting outreach and collaboration with communities, to tracking key indicators and evaluating success. We believe that these elements will be useful in developing key questions that provide insight into how to thoughtfully include and implement health objectives in a master plan.

The seven case studies included in the APA report provide useful examples of ways these elements have been successfully or unsuccessfully utilized.

Implementing Health in Other Plans

City/Region	Health Priorities*	Includes health element or weaves health throughout?	Strengths	Weaknesses
Grand Rapids, MI (Green Grand Rapids Committee, 2012)	<ul style="list-style-type: none"> - Transportation - Quality of life (open space, recreation, walkability, environmental quality) - Sustainable development 	Health is a major component of three sections: “Balanced Transportation,” “A City that Enriches Our Lives,” and “A City in Balance with Nature”. However, there is no element that is explicitly about health. Health is woven throughout the plan.	<p>Outreach: Planners used a unique community outreach tool, a board game called “Green Pursuits,” to gather valuable data from citizens (Green Grand Rapids Committee, 9)</p> <p>Health Priorities: There is a focus on reducing dependence on personal vehicles and improving pedestrian and bicycle infrastructure, an issue that is also relevant to Chinatown (Green Grand Rapids Committee, 19)</p>	Data: The plan measures some public health indicators, but does not call for data collection on actual health outcomes (measures tree canopy to improve air quality, but does not measure asthma rates, which could better indicate public health improvements)
Philadelphia, PA (Nutter, 2009)	<ul style="list-style-type: none"> - Equity (equal access to healthy neighborhoods) - Air quality - Local food - Vehicle miles traveled 	There is no explicit health element, however, the Equity section focuses on providing equal “access to healthy neighborhoods” (Nutter, 40)	<p>Outreach: Planners carefully tailored their message to their audience when doing community presentations. Health was framed as a “quality of life” factor, which resonated with citizens (Ricklin & Kushner, 55).</p> <p>Data: Planners assessed current</p>	Health priorities: The plan does not include an explicit “health” element, which could strengthen the argument for considering health in other policies throughout the plan.

City/Region	Health Priorities*	Includes health element or weaves health throughout?	Strengths	Weaknesses
			measurements, projected measurements if no changes are made, and target measurements given the plan's initiatives. This data was measurable and collected from a variety of departments and sources (Nutter, 3)	
Chino, CA (Design Community and Environment, 2010)	<ul style="list-style-type: none"> - Housing - Transportation - Open space - Parks and recreation - Public services - Air quality - Safety - Noise 	There is an explicit health element called "A Healthy City." Health is also woven throughout the rest of the plan.	<p>Collaboration: Healthy Chino Coalition was used to bring other stakeholders and organizations into the planning process (Design Community and Environment, HC-5).</p> <p>Monitoring: The plan includes useful indicators to track air quality, including the number of non-attainment days, asthma incidence, and the number of residents using active transportation (Design Community and Environment, AQ-23).</p>	Funding: The Healthy Chino Coalition has received funding from the California Healthy Cities and Communities program, Lewis Development, the city budget, and small donations. However, they have not been able to procure substantial, steady funding to expand their capacity (Ricklin & Kushner, 43).
Fort Worth, TX**	<ul style="list-style-type: none"> - Active transportation - Mixed use, transit-oriented development - Preventing food/waterborne illness 	There is an explicit public health section. Health is also woven throughout the rest of the plan.	<p>Monitoring: The county uses a local Behavioral Risk Factor Surveillance System (BRFSS) survey to collect local health data (Ricklin & Kushner, 51).</p> <p>Evaluation: The plan is updated every year, which allows for more accurate data collection and a review of all initiatives that have been implemented to assess success (Ricklin & Kushner, 51).</p>	Collaboration: Tarrant County Public Health Department has had issues convincing its staff of the benefits of focusing on planning. Staff members need to better understand the connection between health and planning (Ricklin & Kushner, 51).
Baltimore County, MD (Smith et al., 2010)	<ul style="list-style-type: none"> - Transit-oriented development - Public safety - Social services - Recreation and parks - Water 	No separate health element. Health is woven throughout the plan.	<p>Context and Timing: The plan aligned with the goals of recent legislation, including Smart Growth legislation and the State Agricultural Stewardship Bill. Together, the legislation and master plan reinforced each other (Smith et al., 8)</p> <p>Champions: The plan had the support of other organizations with aligned goals, such as NeighborSpace, the Valleys Planning Council, and bike advocacy groups (Smith et al., 127).</p>	Implementation: The plan repeatedly mentions the goal of increasing physical activity but faces obstacles in doing so. Namely, there is a lack of open space for recreation, a NIMBY response to developing new walking paths, and the plan does not include specific tools to improve walkability or increase physical activity (Ricklin & Kushner, 41).

City/Region	Health Priorities*	Includes health element or weaves health throughout?	Strengths	Weaknesses
Dubuque, IA*** (Buol, 2008)	<ul style="list-style-type: none"> - Transportation - Environmental quality - Health - Housing - Human services - Recreation - Public safety 	The plan includes a separate health element that addresses physical and mental wellbeing as well as health care and equity issues. Health is also woven throughout the plan.	<p>Context and Timing: Planners update the master plan on the same cycle that the county updates its community health needs assessment. This means that planners can coordinate with the city to address new or changing health needs in the community (Ricklin & Kushner, 45).</p> <p>Collaboration: Staff involved in the planning process have been around for many years, so partnerships between agencies and organizations are long-term and strong (Ricklin & Kushner, 46).</p>	Outreach: Planners and health department staff had difficulty engaging the community in the planning process. They, therefore, created a new role, community engagement coordinator, to reach out to community members who had never been involved in the planning process (Ricklin & Kushner, 46).
Raleigh, NC (Taylor et al., 2009)	<ul style="list-style-type: none"> - Active transportation - Disaster preparedness - Water quality and management - Light and noise pollution - Housing quality - Open space - Public safety - Health and human services 	Raleigh took a “health in all policies” approach. There is no explicit health element, but health is woven throughout the entire plan.	<p>Outreach: Planners specifically targeted young people by creating videos and games and conducting outreach at bars and museums (Taylor et al., 8)</p> <p>Collaboration: Interdepartmental workgroup was formed as a way to unite different agencies, including Departments of Administrative Services, Community Development, Community Services, Information Technology, Parks and Recreation, Public Utilities, Public Works, and Solid Waste Services (Taylor et al., ii)</p>	Data: Different departments were using different data sets, which affected future projections and policies. This illustrates the importance of having interdepartmental communication and consistent data management.

*Health topics that were listed as headings in the table of contents are included in this chart

**2012 plan no longer available online, so information was collected from the APA report (Ricklin & Kushner, 48-51)

***2008 comprehensive plan no longer available online, so information was collected from the Resident’s Guide to the Comprehensive Plan, which included objectives from the plan itself

For instance, cities that explicitly tracked health outcomes, such as rates of asthma in Chino, were able to more clearly connect plan initiatives to actual changes in health. Plans that only tracked mediating factors, such as tree canopy in Green Rapids, were not able to assess if their changes actually affected health outcomes. Furthermore, some plans experienced challenges because different departments were using different data sets, which created conflicting measures and projections. Many plans were regularly updated, which helped planners reassess goals and targets as well as monitor when and how initiatives were being developed to address plan goals. It was interesting to note that outreach was needed not only in the community but also within all involved departments. Educating department leaders and staff on the connection between health and planning helped motivate staff and encourage

interdepartmental collaboration. Plans that included an explicit health element were most effective at weaving health into policies throughout the plan as well. Additionally, many plans used health-oriented grants to procure funding, such as the Pioneering Healthier Communities grant and the Congestion Mitigation and Air Quality Improvement program in Fort Worth.

Considerations for Chinatown

To consider how Chinatown might address each of the nine components of a healthy master plan, we developed a series of question that can help guide the development of a healthy plan for Chinatown:

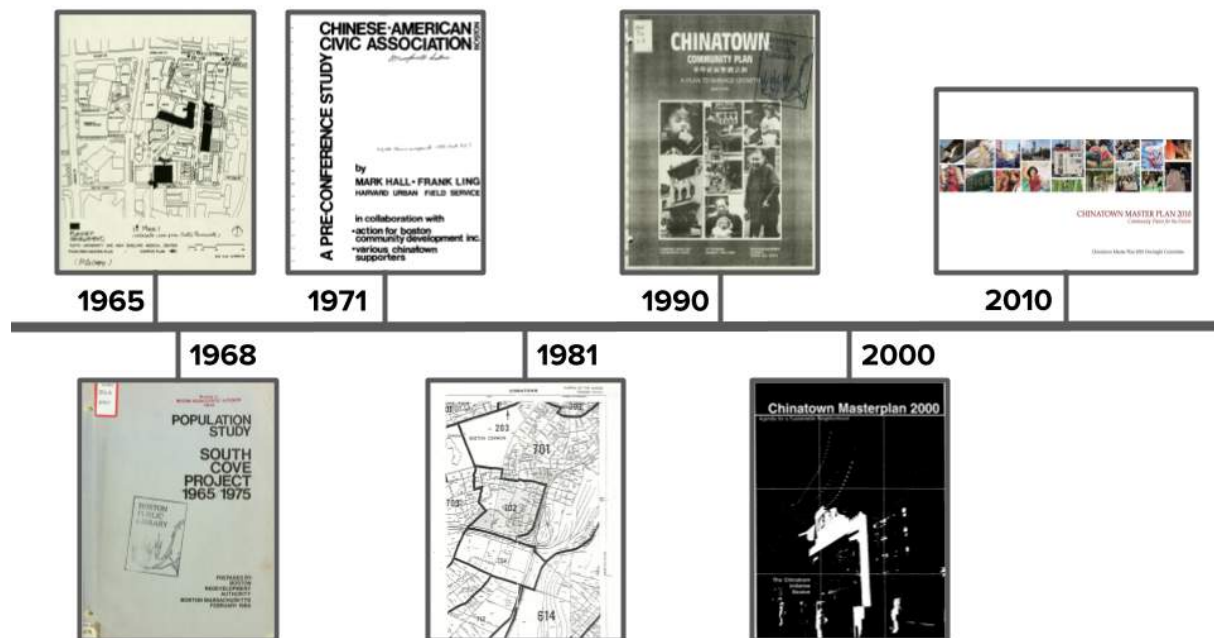
	Questions to consider	Potential resources
Champions	<i>Which influential community members might be champions for a healthy plan? Are there any local government officials that can advocate for a healthy plan?</i>	Lydia Lowe, Director of Chinatown Community Land Trust Courtney Sharpe, Director of Planning for the Office of Arts and Culture
Context and Timing	<i>What Boston development opportunities can we currently take advantage of? How can we advocate for Chinatown within the development of a broader downtown plan?</i>	
Outreach	<i>What is the best way to reach Chinatown residents? Which departments should receive education on the connection between health and planning? Who is best suited to provide this education?</i>	Chinatown Land Trust Chinese Progressive Association
Health Priorities	<i>Which health topics are most important to residents? Which policies can be explicitly connected to health outcomes?</i>	Asian Health Initiative (AHI) South Cove Community Health Center
Data	<i>What health data can we access and what are the gaps in data? What health data can be feasibly tracked?</i>	South Cove Community Health Center Tufts Medical Center
Collaboration	<i>What organizations can we partner with? Can we develop a formal interdepartmental working group in order to promote public health in the plan?</i>	South Cove Community Health Center Tufts Medical Center Chinatown Land Trust Boston Chinatown Neighborhood Center
Funding	<i>What health-oriented grants may be applicable to the work we are doing (funding to improve air quality, active transportation, etc.) Which are the most important health initiatives that we need to prioritize?</i>	

	Questions to consider	Potential resources
Implementation	<i>What barriers will we face in implementing health initiatives? How can residents be involved in the implementation process?</i>	Asian Community Development Corporation
Monitoring and Evaluation	<i>What indicators can and should be tracked? How often can we update and evaluate the plan?</i>	

After reviewing successful examples of healthy master plans, we recommend considering the following during plan development:

- ❖ When working between departments, make sure all staff members are using the same data sets (including population estimates, boundaries, etc) in their analyses.
- ❖ Begin outreach as early as possible, and make connections with community members so they can act as advocates and implementers for the plan.
- ❖ Consider indicators and measurements carefully. Consider which indicators are accurate representations of health outcomes and which are feasible to track over time. Include specific, measurable targets, and use a regular evaluation process to reassess targets so that goals are realistic and attainable.
- ❖ Be explicit in connecting policies to health outcomes. Use a health in all policies strategy when possible.

Past Master Plans for Boston's Chinatown



The past plans for Boston’s Chinatown vary from urban renewal plans which barely acknowledge the Asian American population in the area to master plans led by Chinese American community groups. Starting in 1971, each and every plan covering the area has focused explicitly on Chinatown rather than including it as part of a larger area. This has enabled community groups such as the Chinese American Civic Association, Chinatown/South Cove Neighborhood Council, and the Chinatown Initiative to take a leading role in formulating the neighborhood plan. Today’s leading stakeholders such as the Chinatown Land Trust and the Boston Chinatown Resident Association are stepping into this legacy by proactively preparing to take a leading role in the neighborhood planning process. Applying the health priorities framework from the American Planning Association’s *Healthy Plan Making* report, we observed that active living has always been a concern for Chinatown. Social cohesion and mental health concerns, such as housing, open space, and public safety have also been priorities for urban planning over the past half-century.

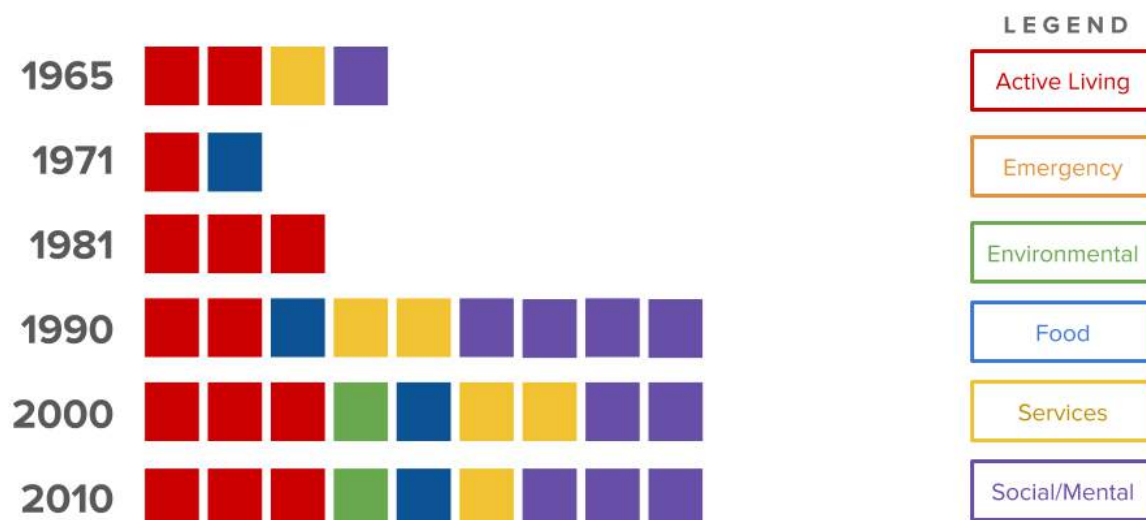


Figure 2: The chart above represents the portion of the 18 health subtopics from the APA framework that each of the plans included. If a plan included multiple strategies for the same subtopic, it would only be counted once.

1965: South Cove Urban Renewal Plan

The BRA’s 1965 Urban Renewal Area Plan for South Cove does not describe the area as a Chinatown. However, in describing the impending displacement of 130 families and 400 individuals, it mentions that the BRA contracted with the Chinese Consolidated Benevolent Association of New England to conduct family surveys. Section 804 of the renewal plan, “Health Objectives,” says “Sanitary objectives must be attained in order to eliminate conditions which cause disease or which are otherwise detrimental to the public health and safety, and the general welfare of the community.” The agency conceived of health as “heat, light, plumbing, and general sanitation.”

1971: The Future of Chinatown

A 1971 master plan, titled *The Future of Chinatown*, was led by the Chinese American Civic Association (CACA) around the same time that the Chinatown South Cove Community Health Center emerged. The main emphasis of this plan was to highlight that “strong ethnic communities are a vital component of the urban fabric of any city and should be bolstered at every opportunity, rather than homogenized into an amorphous, urban population” (Hall & Ling, 2). While health is only briefly mentioned in this plan (by addressing the need for more culturally appropriate nursing homes and “traditional Chinese” medical treatment), the authors do discuss the need for more affordable housing and use an equity lens to consider the needs of the Chinese population in Chinatown (Hall & Ling, 92). Focus groups were also concerned with health-related matters such as childcare and the role of social service agencies.

1990: A Plan to Manage Growth

The 1990 Community Plan, titled “A Plan to Manage Growth” was developed in partnership by BRA and Chinatown-South Cove Neighborhood Council. The plan focused on preserving Chinatown culture, providing affordable housing and community service programs to address a growing population, economic development, and traffic, land use, and environmental issues. While there was no separate health element, health was tangentially addressed through crime prevention, community hospitals, resources for new immigrants, and traffic congestion.

2000: Agenda for a Sustainable Neighborhood

The most recent official master plan led by the Boston Redevelopment Authority (BRA, now the Boston Planning and Development Agency, BPDA) was *Chinatown Masterplan 2000: Agenda for a Sustainable Neighborhood*. The 2000 plan primarily looks at health from an economic lens, observing a rise in traditional and nontraditional health care providers. A “Community Services” section takes note of Chinatown’s role as a service hub for the Chinese and greater Asian communities and mentions the Chinatown Coalition involvement in the Healthy Boston Initiative. Chinatown Against Drugs was also involved in the citywide Boston Against Drugs efforts. Environmental health and pedestrian safety due to vehicular traffic are already a concern at this time. While the 2010 master plan is more concerned with the impacts of new construction, the 2000 master plan takes issue with aging buildings retaining lead pipes and lead paint.

2010: Community Vision for the Future

In 2010, in the absence of an official planning process from the Boston Redevelopment Authority, community stakeholders formed the [*Chinatown Community Master Plan 2010*](#). These stakeholders included local residents, school representatives, academics, and local organizations. One of the ten goals of the plan is to “Cultivate a healthier and cleaner environment and promote the health and well-being of its residents” and related goals call for

improvements to safety, open space, housing, and quality of life. The plan observes challenges in environmental health related to automobile congestion, air pollution, overcrowding, a scarcity of open space, and pest-attracting waste (29). It also notes opportunities with the Tufts Community Assessment of Freeway Exposures and Health (CAFEH) study, organizing cleanups, and coordination between health and social service providers. The plan calls for long-term environmental health strategies such as developing a community health and wellness program, minimizing noise and air impacts and minimizing the impacts of new development.

Health in North American Chinatown Plans

Beyond Boston, large concentrations of Asian Americans historically occupy Chinatowns in cities such as New York, Philadelphia, Chicago, Seattle, Los Angeles, San Francisco, and Oakland. While many of these areas have growing populations, the percent of their populations that is of Asian descent is on the decline (Philadelphia Chinatown Development Corporation, 17). Chinatowns in North America are of varying size and scale, but many figure prominently into area planning efforts if they do not have their own dedicated plans (see the following table). No area planning studies were found for cities with historically significant Chinatowns, such as Toronto or Montreal, Canada. Others, such as Washington, D.C. and Portland, Oregon still nominally have Chinatowns but the Asian American population has decreased significantly over time. New York City's Flushing neighborhood retains a significant Chinese population, however, but the city's planning department was unable to successfully complete a neighborhood planning process. A few of these plans were led by or developed in partnership with community development corporations.

Of these plans, few mention health as an explicit objective. Still, many incorporate health-related concerns as framed by the American Planning Association's *Healthy Planning* report. Access to healthcare and related services is frequently mentioned, as is social isolation and mental health concerns. This is informed by a prevalence of groups such as older adults, those with limited English proficiency, and lower-income households at risk of gentrification-induced-displacement. While no planning document details it, there is a public health approach to programs in Oakland (Philadelphia Chinatown Development Corporation, 17). The only planning document in our sample with a section dedicated to health was Philadelphia's, where a short "Community Wellness" section fits into an overarching framework of health and equity (Philadelphia Chinatown Development Corporation, 29-30).

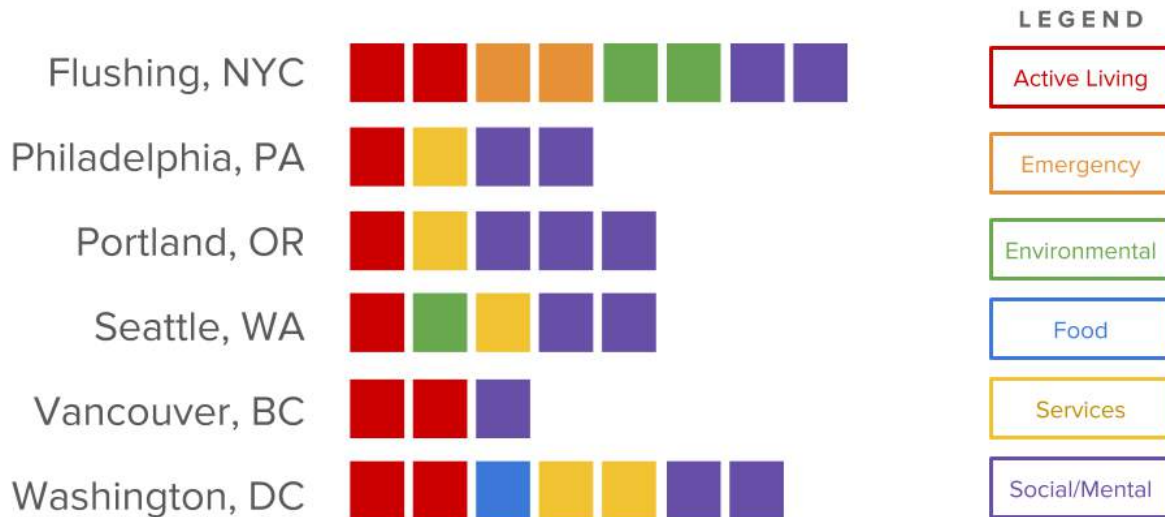


Figure 3: The chart above represents the portion of the 18 health subtopics from the APA framework that each of the plans included. If a plan included multiple strategies for the same subtopic, it would only be counted once.

Active Living

Active living shows up in every one of the six plans examined, especially in terms of walkability. This is mostly accomplished through traffic calming through street redesigns that reduce automobile traffic speeds. The Old Town-Chinatown plan in Portland calls for “streets for people,” noting explicitly that street design prioritizing automobiles has come at the expense of pedestrians (4). Most bold is Philadelphia, which calls for capping an expressway as well as closing one block of a street. The plan for Seattle’s Chinatown–International District observes that highways are especially challenging to cross under. Various plans demand streetscape and sidewalk improvements to the pedestrian experience, drawing the connection between a vibrant, culturally relevant public realm and walking. Washington, D.C., and Vancouver both specifically mention the cleanliness of sidewalks and describe the provision of bilingual wayfinding signage. Seattle frames this most clearly as healthful, using the language of “street and sidewalk improvements that are healthful, biophilic and regenerative” (Strategy 6). Vancouver notes that it has recently re-stripped bicycle lanes in the area, whereas Philadelphia calls for an expansion of the existing bicycle network (2.2). Philadelphia suggests educational programming about bicycling in particular, and Seattle pushes for “culturally- and linguistically-responsive community engagement and education” to increase “physical and social activity” (Strategies 1, 6). Similar strategies could be used to improve the walkability of Boston’s Chinatown. While wayfinding on streets did not surface in our qualitative engagement, multilingual signage could address confusion mentioned about nearby public transit stations.

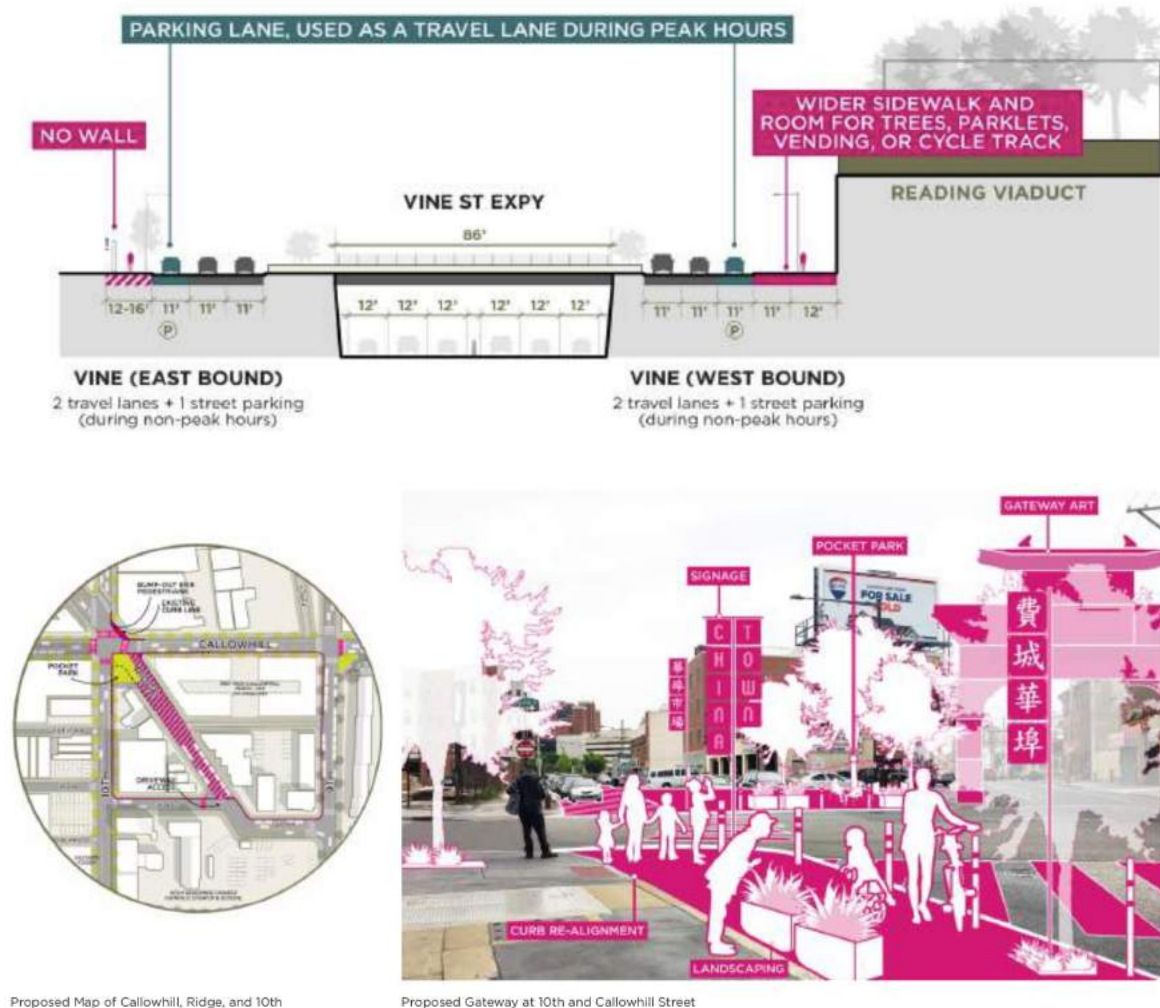


Figure 4: Top: A section drawing illustrating the potential capping of the Vine Street Expressway in Philadelphia's Chinatown. Below: A diagram imagining the closure of a one-block stretch in Philadelphia and a rendering of the re-aligned, improved, and activated streetscape. (14-15)

Social Cohesion and Mental Health

Perhaps because some of the elements of the APA's Social Cohesion and Mental Health category are more traditionally in the domain of urban planners, at least some of these strategies were described in detail in all six of the Chinatown plans in this analysis.

Housing

Housing affordability and quality were major concerns of the Chinatown plans, reflecting the trend of their rising populations and declining percentage of Asian Americans. The *Chinatown Neighborhood Plan* in Philadelphia notes 75% of residents are renters in the area, making them especially at risk of displacement (33). Accordingly, Philadelphia, New York, Portland, and Seattle all describe twin strategies of building and preserving affordable, mixed-income housing. Seattle and New York consider the risk vulnerability of tenants to eviction, calling for direct services to protect them. Seattle also specifically mentions joint

venture and preservation financing models as well as the transfer of publicly owned land (19). New York proposes bringing Mandatory Inclusionary Housing to Flushing West (125). The concerns about displacement match the concerns expressed in Boston, in retaining an aging population and accommodating New Americans with families. Since Boston's Chinatown is experiencing high rates of development, Mandatory Inclusionary Housing could be an especially good match.



Open Space

All but one of the six plans mentioned open space, but there was more vagueness than prescription in this category. Seattle merely mentions an ongoing “multi-organizational parks activities series” and Portland mostly calls for further open space study. Portland does suggest a new pedestrian plaza and working with developers to produce “recreation pockets” (10). Philadelphia does the same but goes further to suggest rooftop recreation and garden spaces as well as indoor community spaces (16). New York acknowledges the limited park space in Flushing West but suggests a wayfinding to connect residents to existing smaller parks (116). Washington, D.C.’s *Chinatown Cultural Development Small Area Plan* is

the only to draw attention to a signature park. The Office of Planning proposes a complete redesign of the park to include seating for the elderly and play equipment for the young. Furthermore, they recommend heavy programming of the space, including a weekly street market that takes over an adjacent street (68-69). It may be difficult for Boston’s Chinatown to locate a large parcel for a park like the one in Washington, D.C., but the neighborhood could benefit more easily from more pedestrian plazas, pocket parks, and street closures that reclaim space from automobiles.

Public Safety

Safety from crime appears in half the plans and appears to be connected to the proximity of the Chinatowns to the downtown cores of their respective cities. Portland calls for committees to encourage partnership in crime reduction, while Seattle asks that such collaboration and education be “culturally and linguistically responsive” (22). Portland and Washington, D.C. both endorse crime prevention through environmental design, particularly through lighting. Washington, D.C. encourages a meeting between the government and local property owners to identify priority areas for lighting interventions (72). In its section on crime and safety, Portland calls for the provision of “safe, clean and convenient public restrooms” (9). Concerns about public urination in Boston’s Chinatown could also be addressed through the development of public restrooms. Locations for improved lighting could be determined

through the hotspot analysis in the first section of this report and through further qualitative engagement with residents. Inclusive partnerships could also be key.

Noise

While noise is an aspect of social cohesion and mental health outlined by the American Planning Association and described repeatedly as a concern in Boston's Chinatown, it did not appear to be a priority in any of the other Chinatown plans.

Health and Human Services

Accessibility

Half of the plans in this sample addressed the accessibility of healthcare and other related services. Seattle mostly called for continued collaboration and investigating sustainable funding models. Washington, D.C. observes that linguistic barriers prevent Chinese residents from accessing a variety of medical and public services. They hope to recruit bilingual staff to pharmacies through bilingual job fairs and partnerships with local pharmacy schools. DC also hopes to identify the government services that require translation and develop relationships with translators at public agencies (73). The Community Wellness section of Philadelphia's Chinatown plan focuses on healthcare services, encouraging multicultural outreach and education programs (20). The plan recognizes the value of the Chinatown's civic infrastructure and calls for strengthening those institutions through coalition building, physical expansion, and more programming. Health care access has yet to emerge as a major issue in Boston's Chinatown due to anchors like the South Cove Medical Center.

Aging

Two of the plans directly confront aging. Flushing West has a disproportionately large population of 45 to 65-year-olds. The NYC Department of Planning notes that these adults did not move to suburbs as parents and do not seem interested in leaving the neighborhood in their old age either. To accommodate, New York calls for more senior housing that is affordable and increased senior services (125). Washington, D.C. gets more specific, saying it will "seek investors with national and international resources to create cultural specific retirement care facility" (75). DC cites examples within the region of continuing care retirement communities as a justification of the market for such services for gradually aging in place. Aging is a prominent concern in Boston's Chinatown as well, and such services could potentially be improved in the neighborhood as well.

Outreach and Engagement

Of the plans that do exist, few describe community engagement techniques in detail. Flushing, NY and the Chinatowns of Philadelphia, Seattle, and Washington all make use of the large public meeting. Philadelphia describes the most intensive outreach effort, with intercept surveys, key informant interviews, focus groups, and collaborative mapping exercises. The

majority plans acknowledge input from a variety of stakeholders. NYC, Vancouver, and Washington’s city governments took the lead in their processes, but community organizations took the lead in the case of Philadelphia and Seattle. Partners and working group members often include community development corporations, resident and business associations, historic preservation groups, and even public health-related entities.

Philadelphia’s on-street intercept and online surveying took place in partnership with a community garden, a variety of local businesses, a neighborhood association, churches, and a condominium building. (Philadelphia Chinatown Development Corporation, 21). A collaborative mapping exercise aggregated respondents’ homes and favorite places, in addition to identifying spots for funding potential improvements (22). Further qualitative data was gathered through door-to-door resident surveys, confidential key stakeholder interviews, targeted focus groups, and two public forums (24).



Metrics

A desire for accountability is seen throughout the Chinatown plans. The planners in Washington, D.C. state that they were asked repeatedly how they would stay organized and track progress, and propose a quarterly community forum to fill that need (78). While many of the plans use data to inform their conclusions, the only of the six plans focused on metrics and data outcomes is Seattle’s. Seattle sets four categories of objectives, each with two to three objectives within them (24-25). Two to four indicators are in turn specified for each objective. For instance, one category is, “Public safety, both real and perceived, is improved.” One of the three objectives within that is, “The built environment is conducive to public safety.” The indicators specified within that are both general (percent who feel safe in the neighborhood) and spatial (perception of safety in different areas). Though the data points might require collaboration with the Boston Public Health Commission, Boston’s Chinatown could measure outcomes similar to or more comprehensively than Seattle’s.

MEASURING OUTCOMES 25

MEASURING OUTCOMES

Examples of locally-relevant indicators we can measure to track progress in improving the health, safety, and livability of the CID neighborhood.

Objective Category	Objectives	Indicators
Foster an active, healthy, engaged, and connected community	Health outcomes and access are more equitable	<ul style="list-style-type: none"> Self-reported health Percent of residents with a primary care provider Hospitalizations or ER visits due to chronic illness, by illness
	Health and wellness-related community programming is accessible	<ul style="list-style-type: none"> Percent of residents participating in community events over time Count of community and resident programming related to physical, mental, and social wellbeing
Stabilize and enrich residential and business communities	Culturally appropriate economic development is encouraged	<ul style="list-style-type: none"> Change in community and business organizations (e.g., membership, nature of activities) Number of new developments and rehabilitations in the neighborhood
	Risks of gentrification and displacement for residents and businesses are reduced	<ul style="list-style-type: none"> Housing market conditions compared to adjacent neighborhoods Percent of apartments in CID within fair market rate Demographic changes (e.g., increase in white population, educational attainment, household income) Changes in average rent in the neighborhood

A Guide to North American Chinatown Plans

City	Explicit Health Orientation	Health Priorities	Engagement
Flushing West, Queens, New York, NY (City of New York Department of City Planning) <i>The neighborhood planning process ultimately failed, but an extensive Brownfield Opportunity Areas Nomination Report was published.</i>	No	<ul style="list-style-type: none"> - Active Living - Active Transport - Injury - Emergency Preparedness - Climate Change - Natural and Human-caused Disasters - Environmental Health - Water Quality - Brownfields - Social Cohesion and Mental Health - Housing Quality - Green and Open Space - Mental Health 	<ul style="list-style-type: none"> - Community meetings in open house (tables by topic area) and presentation format. - Stakeholder Advisory Committee - Handouts, fact sheets, flyers, and meeting notices in English, Korean, Chinese, and Spanish - Meeting notices in English, Chinese, and Korean media - Project website - Attendance at local Community Board meetings
Chinatown, Philadelphia, PA (Philadelphia Chinatown Development Corporation, 2017)	“Community Wellness” section	<ul style="list-style-type: none"> - Active Living - Active Transport - Health and Human Resources - Accessibility - Social Cohesion and Mental Health - Housing Quality - Mental Health 	<ul style="list-style-type: none"> - Community survey, in-person and online - Visitor survey at local businesses - Collaborative mapping - Door-to-door resident survey - Key informant interviews - Focus groups - Public forums
Old Town - Chinatown, Portland, OR (Portland Development Commission, 1999)	No	<ul style="list-style-type: none"> - Active Living - Active Transport - Health and Human Services - Aging - Social Cohesion and Mental Health - Housing Quality - Green and Open Space - Public Safety/Security 	The steering committee includes several members of the neighborhood association, one from a business association, one from an Arts & Entertainment Committee, and one from a property owner.
Chinatown - International District, Seattle, WA	No	<ul style="list-style-type: none"> - Active Living - Active Transport - Environmental Health - Health and Human Services - Accessibility - Social Cohesion and Mental 	<ul style="list-style-type: none"> - Community meeting - Other engagement strategies, if they occurred, are not mentioned.

City	Explicit Health Orientation	Health Priorities	Engagement
(Includes Chinatown, Historic Manilatown, Japantown, Little Saigon) (Tran, Im, & Nelson)		Health <ul style="list-style-type: none"> - Housing Quality - Public Safety/Security - Mental Health 	
Chinatown, Vancouver, BC (City of Vancouver, 2012)	No	<ul style="list-style-type: none"> - Active Living - Active Transport - Injury - Social Cohesion and Mental Health - Housing Quality 	Not described.
Chinatown, Washington, DC (District of Columbia Office of Planning and Mayor's Office on Asian and Pacific Islander Affairs)	There are no explicit mentions of health, but health-related concerns show up in the "Living in Chinatown: Supporting Chinatown's Residents" section.	<ul style="list-style-type: none"> - Active Living - Active Transport - Injury - Food & Nutrition - Accessibility - Health and Human Services - Accessibility - Aging - Social Cohesion and Mental Health - Housing Quality - Green and Open Space - Mental Health 	<ul style="list-style-type: none"> - Translated print materials - Materials posted online and linked to from local organizations and businesses - Four large public meetings with translation - Five task forces which met three times each: <ul style="list-style-type: none"> - Community Leadership - Arts and Culture - Business and Economic Development - Design and Public Realm - Residents and Neighborhood -



热烈庆祝中华人民共和国国庆

五味
5 SPICES
HOUSE

新金門海鮮
NEW GOLDEN GATE
SEAFOOD
617

NEXT STEPS

Recommendations

1. Chinatown should receive its own neighborhood Master Plan for 2020. If that option is not possible, Chinatown should be granted a special sub-plan or special overlay district as part of the PLAN: Downtown initiative.
2. BPDA, MAPC, the Boston Public Health Commission, the Tufts Medical Center-Asian Health Initiative, local community health centers, and community-based organizations should work together to gather disaggregated health data of Chinatown residents.
3. Re-design Chinatown's streets to provide greater public space for pedestrians and urban greenery. We specifically recommend that Beach Street between Washington Street and the Chinatown Gate be closed to vehicular traffic with two exceptions: 1) service vehicles and shop owners are allowed to access Beach Street at night or early morning (i.e. 12-5am), and 2) vehicles are allowed to pass at the intersection with Harrison Ave as long as significant pedestrian protections are added (e.g. a raised intersection, bulb-outs, and flashing lights and signage).

Areas for Further Research

Although we gathered a plethora of qualitative and quantitative data about Chinatown, there are still a variety of areas for further research as part of the master plan health lens analysis:

1. Partner with the Public Works Department to conduct an extensive parking and transportation demand management study in order to fully and quantitatively assess ideal candidate streets for closure.
2. Though Chinatowns in other cities may not have published neighborhood plans, the planning team could examine other specific planning efforts for inspiration. For example, major Chinatowns such as San Francisco have transportation studies that could be relevant pending further analysis of resident concerns.
3. Conduct case studies of successful strategies and implementations on how to develop community-use space and how to promote policy changes in clean air and affordable housing in Chinatown.
4. More in-depth field research is needed to study how to improve the quality of life for residents in regards to issues like noise, security, and trash. Research should ideally focus on parts of Chinatown identified in our field notes to be facing these issues most acutely.

My happiest memory
is having great meals
with my family in
Chinatown.

APPENDIX

Community Stakeholder Interviews

Interview 1

Interviewed 2018-11-29 10:00 AM

Interviewers: Maura, Syed, Mariana, Sharon

Translator: Ann

General

- **What makes a community healthy?**
 - A healthy environment is a very important issue for them. Air quality, building, sanity, and security/crime, air pollution is key, especially for elders.
- **Follow up question: air quality?**
 - She moved here more than 10 years ago. She used to live in New Hampshire with her daughter and the air quality was much better there. The most impact on her is exhaust from cars. There are garages nearby and there are not many green spaces nearby. “I live in 705.” [She said this in English.] Even though she lives so high up, there’s dust on the table. She coughs more than before, caused by the dust. When she walks down the street, she feels like there’s a lot of dust in the atmosphere. Maybe because her health is getting worse, that’s also the reason.
 - She’s coughed for a number of years already. The main reason is outside air pollution. Even in winter, it’s already better but it still bothers her especially in the summer. Three years ago, her daughter bought her an air filter. They change the filter regularly and when they change the filter, they see a dark color that tells them how bad the air is. At least she has the filter, it helps.
- **Security**
 - She doesn’t feel safe walking around Chinatown.
 - Her daughter in law bought her a nice handbag a few years ago. They were walking around Washington and Tremont St. Her daughter in law said, “Ma, be careful.” She didn’t know why she said that. When she came home, her daughter in law said a man was watching her handbag which is why she came up to warn her.
 - She brings a recycle bag when leaving so no one will pay attention to her.
 - She doesn’t want to go out in the evening.
 - There’s a Nightclub nearby and there are a lot of drunkards. They put bottles nearby and that causes safety hazards for the elders.
 - Three weeks ago, they were walking in Chinatown near Nap Street and __ (Washington St?) __. There were homeless people chasing her husband for money. She feels like people really go after the elders for money. This happened during the daytime.

- Another incident: they have a neighbor in this building when she went to the bank, around the daycare area, she was robbed. She cannot confirm but that's what she heard. Everyone says don't walk in those quiet areas.
- **Are there other areas with trash?**
 - Chen-Yi says: they used to have a trash can in front of their building, but people just make it really dirty and make a mess, so the building just took it away. It doesn't really matter if you have a trash can. People just trash the bottles. You can smell the pee everywhere too, especially in the corners.
 - It's very surprising to her son in law because he came from China. He thought America was civilized but it's not that civilized, compared to Singapore and China. You need to educate people to keep the environment clean and the government needs to regular the environment to keep it clean.
- **FOOD: Where do you get your food? What do you see as problems that residents face in accessing healthy food? What are programs and businesses that help?**
 - It's pretty convenient. Mostly they go to Chinatown stores to shop and it's affordable. Even if they don't want to go that far, there are some convenience stores nearby. The cost is a little bit high but it's okay for them.

Open Spaces

- **Parks and trees**
 - Absolutely, there are not enough trees, not just in this area but in all of Chinatown. There's not enough green space and it's not lively. There are all buildings around and it's not healthy.
- **Do you use any of the parks that do exist?**
 - Mostly they go to the park over here nearby and when they go shopping in Chinatown, they might also go to Reggie Wong but not much. They go to Boston Common a lot, usually in the summer. Winter is a challenge for them. Her coughing—it's too windy for her in the winter.
- **In the ten years you have lived in your neighborhood, have you seen any changes?**
 - It seems that it doesn't change that much. The most change is the buildings: there are so many new buildings. After Mayor Walsh came up, his administration improving Tsai Chung park and improved the park near here. She wants to see more trees along the roadside though.
- **Are there areas where the sidewalks or trees are hard to walk around?**
 - The roadside is pretty safe. The only thing is the traffic light is too short for the elderly to walk across. Usually, they haven't finished, and the light has already turned red, which is a threat for the elders. They tend not to run or rush because they want to rush, but the traffic light is too short.
- **Buildings: Does housing support health or are there health problems inside the buildings?**
 - She doesn't like the tall buildings because the tall buildings really affect the health of the residents' health here. She just doesn't like it.
- **Flooding or heat waves?**
 - She did not encounter any flooding but because she lives on the seventh floor, it seems to her that there is not enough insulation on the roof to prevent the heat

coming down. In the summer it's really hot, up to 90°. Even though the building has central air conditioning, it seems to her it's not enough, so they've had to put in an extra air conditioner in the room. Then again, it's not healthy for her because of her coughing. She doesn't know what to do!

- She has this coughing problem. She thinks it's because of herself, but on the other hand, the air conditioning also effects. She and her neighbors complained to the management and they say they'll change the circulation system. Instead, they change the manager. In her ten years, they've had 7 managers.
- About two years ago, some residents found bed bugs and they found mice. Even though her unit doesn't have those things, it worries her.

- **Rats and pests?**

- Rats. She thinks that there's too much trash in the area, especially when you have hotels here. It's overwhelming. They complain to the city and even the city doesn't know what to do. They come to pick up the trash at midnight but it's not helpful at all. The noise bothers the elders too.

- **Noise?**

- She actually wrote down some of the things about noise pollution she's been experiencing. The most polluting is the ambulance and police sirens, and also the garbage trucks. Since the hospital is nearby, there are a lot of ambulances rushing through. Some of the elders have to take sleeping pills to sleep at night. That's something the government should regulate. Where she comes from in China, the government regulates and makes sure there are no sirens at night.

- FOLLOW UP

- The nightclubs and the restaurants, when they close, everyone rushes out and that's the time the drunkards are yelling and screaming and throwing their bottles on the ground. It's just unbearable for them.

- **What are the top one or two things she really likes about living in Chinatown?**

- She thinks that living in Chinatown feels like home because she came from China. Living in Chinatown, there are a lot of things she values like going to dim sum. The food is all from China. She feels like home. In the community, there are a lot of traditional festivals. There are new year's celebrations.
- From her own experience, people here are very friendly and helpful. One time she fell sick, when she fell sick she went to South Cove Health Center and the doctor told her she needed to go to New England Medical Center. It was just across the street, but people could tell she was sick and asked if she was okay and helped her. When she entered the Center, everyone came to her and helped her with a wheelchair.
- She helped a neighbor go to the bank and her neighbor fell and people were helpful.

- **Are they strangers or neighbors she knows?**

- The people are strangers!
- A couple of days ago, she was totally moved by this person. She went to Walgreens and tried to buy some chocolate. She forgot her cash but had her food stamp card. The cashier said I cannot accept that. A young girl offered to

pay for her, and she was like, “No Way! I cannot accept that.” She was really touched. No one would do that in China.

- **Past Planning Processes**
 - Two years ago—maybe several years ago—, she went to an air pollution assessment. They were drawing blood of people who lived under the fifth floor and she was part of that. Those people came to her unit and checked her filter.
- **Thank you.**
 - Thank you so much. She really wants you to use all of her materials to advocate for the residents and hopefully, the government can make some good policies to advocate for the environment.

Interview 2

Interviewed 2018-11-29 11:07 AM

Interviewers: Maura, Syed, Mariana, Sharon

Translator: Ann

- **What do you see as making a community a healthy place to live?**
 - Living in Chinatown is very convenient for her. The best thing for them is that there are hospitals and health centers here, so it’s easy for them to do regular check-ups. There’s also the shopping nearby. The bad thing here is the air pollution. There’s noise here too, because of hotels, theaters, and karaoke. It affects their sleeping time here. A lot of the time she needs to take pills to sleep. I understand that those are businesses and they need to make money, but can they set some rules not to go past 11 PM so they can have a good sleep at night?
- **What’s the source of air pollution and how does it affect life in Chinatown?**
 - In terms of air pollution, she doesn’t know where the dust comes from. Every day she cleans her tables. If it goes two days, she can write on the dust on the table. She thinks it’s from the cars. She thinks there should be more trees. The motorcycles are the worst for them because of the noise. The motorcycles are on Tremont Street.
 - Maybe the government should set some rules, prohibit motorcycles from coming on Tremont Street after a certain time. The other thing is too much garbage because people don’t care. They throw the trash everywhere. People pee on corners on sidewalks. It’s really bad for their health.
- **Are there particular parts of the neighborhood that you think would benefit from more trees?**
 - There are trees planted in the park but it’s not enough. She knows there is going to be developed on parcel 12. Is it okay to plant more trees on that parcel? Also, more trees on the sidewalk. Planting more trees on the sidewalk will help with dust and air quality.
- **Do you use the park nearby?**
 - She felt so she uses this park a lot to exercise.
 - The people who have dogs don’t pick up after their dogs. Sometimes they don’t see it and when they come home, they see it, and it’s really bad. The owner has to pick up after the dog. It’s not healthy for the community.

- **How long have you lived in Chinatown?**
 - Seven years
- **Have you seen many changes, or has it stayed the same?**
 - More buildings. She said that even though there are many buildings up there are not enough affordable housing for low-income people. For example, her daughter came here and tried to apply for affordable housing here but there was nothing available for them. She can see the change, there are many buildings up but there's not enough affordable housing. It's hard for them to pay the market rent in Chinatown. She hopes that there will be more affordable housing built in Chinatown but even below market rate is okay, not necessarily "affordable housing." Most of the buildings up, they're luxury housing.
- **What do people do when they can't afford the housing? Do they double up or move elsewhere?**
 - For example, for her daughter, her son in law, and grandson, came to this country and they cannot afford the rent in Chinatown, so they had to move to her other son's house and live in the basement in Quincy. In Chinatown, there's no way they can even rent a small unit here. Build more affordable housing.
- **How is it to walk around?**
 - The road condition is pretty good, but her eyesight is not good. The road condition is good but there are so many constructions over there and there are so many pedestrians they need to yield and there's not enough space.
- **Do you have concerns about crime or feel like Chinatown is generally pretty safe?**
 - She doesn't have direct experience, but she heard somebody encountered something like that. A golden necklace was robbed off of someone, so she thinks it's very unsafe. Two years ago, in front of the Imperial restaurant, there was an incident too. It seems like people target elder people to steal their jewelry. There are robberies in Quincy too. She also heard about people fighting in the park, though she did not see it herself. She thinks that safety is a key issue for the elders here.
- **Has extreme weather such as flooding or heat affected Chinatown?**
 - No, it hasn't. I'm not afraid of heat. I'm only afraid of the cold but she has heat at home, so she just stays home.
- **Pests?**
 - There's a mouse in her room right now. There are no cockroaches but there's the mouse. In this building—not in her room—there are mice, cockroaches, and bed bugs in the other units. She's never had that before, but they have bed bugs here. It started two years ago, and it still exists here.
 - The mouse ruined her plants. It eats the plants. She doesn't know where it is now. She has all those sticky things but it's very small.
- **Are there other really good qualities about Chinatown that support your health?**
 - It's very convenient for her.
- **You mentioned shopping. Is it mainly for food or everything?**
 - Buying food is important for her because she doesn't know English and cannot drive. She relies on other people for buying other things but she can handle buying food.

- **How do you stay active?**
 - In the summer, she and her friends will go to Boston Common. Only if there's a group of people though, otherwise she goes to the park here. She likes to exercise.
- **What do you like about the parks?**
 - She likes to go to Boston Common because there are benches, so they can sit down. She suggests a public bathroom especially for the elders since they don't walk fast. Once they need to go to the bathroom, they don't know what to do. At the nearby park, they used to have benches and tables, but the remodel took them away and so now they have nowhere to sit down. She mentioned that a lot in public meetings and hopefully the city will reinstall them. And also, a public meeting.
- **How have you been involved in public processes?**
 - She always goes to the Chinatown Resident Association meeting every month. She always raises her comments and suggestions there. Sometimes even the mayor will come to the meeting and she'll raise her concerns there.
- **What are the highest priorities for making Chinatown a healthier place to live?**
 - Air
 - Health
- **You mentioned Quincy. How do you get there? Is it easy to get there?**
 - Her older son lives in Quincy and she goes pretty often. It's pretty difficult for her to get there even though the Orange Line is so close by. She doesn't know how to make the transfer. She'll walk to Downtown to take the train to Quincy. Her knees—someone changed her to have surgery to replace her knees, but she doesn't want to do that. She doesn't go much since the fall and her son will come more often now. She would take the T to North Quincy and from there she needs to take the bus, so she said I'm not coming anymore. I don't speak English, that's the problem too. When her son comes here, it's very difficult because when they drive there's nowhere for them to park. It's been a difficult thing for her son to come to visit her and she suggested there should be visitor parking, especially for the weekend for them. It will make their life much, much easier. If her son couldn't find parking he would just ask her to come down and they would just talk for a couple minutes so they could see each other. Her younger son one time was fined \$100 and his car was towed. Because of that they really don't want to park here. They can't pay \$35 a day to park in a garage here; it's too much.

Interview 3

Interviewed 2018-12-4

Interviewers: Maura, Mariana, Chris

- **How long have you lived here?**
 - 4 years
 - But lived here 30 years ago, moved to Quincy, and came back

- Rent was very affordable 30 years ago, but parents wanted to buy instead of rent and have more room
- Family of 7
- **What makes a community healthy?**
 - Clean air
 - Less noise and air pollution
 - Affordability (most low-income residents cost burdened here)
 - Places to relax: parks, recreational centers
 - Wants to see: something whole family can participate in
 - Don't want just basketball or tennis court w/ nothing for kids
 - Something for kids, something for elderly (lots of elderly living in Chinatown—multiple buildings designated for elderly and some grandfathered in with low rents)
- **Trash**
 - Trash all over the ground in Chinatown (small pieces)
 - People leave trash on the curb
 - Trying to enforce people leaving trash bags in barrels
 - Problem: rats, rodents, seagulls
 - The problem comes from dense population AND lack of receptacles
 - Residents and restaurants
- **Air quality**
 - Adjacent to major highways: MassPike, I93
 - Open window = noisy, smell emissions,
 - soot builds up on the windowsill
- **Do you know neighbors?**
 - Yes – because he works in the community and is on Resident Steering Committee
 - People used to know one another here but now don't as much
 - Demographic of his building is majority non-Asian
- **Food: Where do you get your food? What do you see as problems that residents face in accessing healthy food? What are programs and businesses that help?**
 - Have Whole Foods – not affordable
 - Have Asian markets – more affordable
- **Parks and trees**
 - Not many trees
 - Trees have been cut down to make way for new construction
 - Chinatown pretty connected to other neighborhoods – residents of Chinatown go to Boston Commons
 - Had not heard of Eliot Norton park
 - People don't use Reggie Wong Park much
 - Summertime use it more
 - Plans to redevelop it – talked about building residential or hotel there
 - Not very family friendly

- Needles on ground
 - Playground by the gate of Chinatown for young kids
 - One concern: residents felt there isn't family friendly park
- **Safety**
 - Needles all over; several rehab centers in the area (St. Francis House)
 - Several large nightclubs; people usually pretty drunk
 - Nightclub on South Street
 - Many places open till 4 in the morning
- **Aging in Chinatown**
 - Many elderly residents
 - Not a healthy place for elderly: a lot more people here, highway always backed up, air quality worse, fewer green places, many don't feel safe walking home even in the middle of the day (needles on the ground)
- **In the years you have lived in your neighborhood, have you seen any changes?**
 - New buildings
 - Hotels
 - Rent really high (started 10-15 years ago—last 4 years really a problem)
 - Airbnb
 - Demographics changed dramatically
 - Moved to the country 30 years ago
 - “I started living in Chinatown 30 years ago, moved out, and moved back”
 - The area used to have one of the lowest rents in Boston
 - No longer low-income families: doctors, lawyers, people who work seaport, international students, dental students
 - 30 years ago: a bunch of row houses
 - Started getting built up around the year 2000
- **Are there areas where the sidewalks or crosswalks are hard to walk on?**
 - Sidewalks and crosswalks horrible
 - “Don't wear any high heels”
 - Sidewalks are crooked
 - He's twisted his ankle a few times
- **Buildings: Does housing support health or are there health problems inside the buildings?**
 - Chinatown has one of highest rents in town
 - Some rowhouses have bad landlords
 - Buildings are old
 - Most landlords don't live here
 - Can get so much rent
 - Use the money on mortgage somewhere else
 - Landlords live in Quincy or Malden
 - Stress from high rents affects people's health
- **Flooding or heat waves?**
 - No major flooding but drainage not that good
 - Lower rowhouses

- Streets backed up when raining or snowing
- **Rats and pests?**
 - Sees huge dead rats on the street
 - Lower units disgusting
- **What are the top one or two things he really likes about living in Chinatown?**
 - Location; very convenient
 - Work down the street and can get to work pretty quickly
 - Good companies to work for (State Street, law firms)
 - Accessible to transit
 - Lots of things to do: food, theater, shopping
 - Centralized location
- **Past Planning Processes**
 - Haven't been involved
 - Was away for many years and was shocked to come back
 - "Where did this building come from? Where did the YMCA go? What happened to this restaurant?"
 - Only started to get involved recently

Interview 4

Interviewed 2018-12-3 5:00 PM

Interview: Yun Zhu

- **How long have you lived here?**

We moved here two years ago. My husband and I are from the Harvard Ph.D. program, he is from the history department and I am from the anthropology department.

- **What are the reasons that motivate you to move here?**

When we got married we decided to buy a house and we think Chinatown is a good location, very convenient and also compared to neighborhood district, it is actually much less expensive. Therefore we made this decision. Moreover, I am originally from China and I think living in Chinatown can keep some of my identities. I like the culture here.

- **What makes a community healthy?**

I think the environment and safety are very important. Also, clean air is another important factor for us.

- **Do you feel safe?**

Yes. We lived in the apartment and we have a security guard at the front desk. So I think it is pretty safe. However, I do notice that there are some Airbnb guests with their bags in our apartment. According to the rules, our apartment does not allow for the Airbnb services

so I think some residents secretly rented their rooms. In general, I think it is pretty safe to walk at night.

- **Do you use any of the parks that do exist?**

No, I don't use them. Our work is pretty busy so we don't usually have time to go to the park.

- **Have you participated in some meetings organized by local communities or associations?**

I haven't heard from any activities happening in our community, only in our apartment. I would like to participate but I don't know where to get these kinds of information. Maybe they should disseminate information more broadly.

- **In the years you have lived in your neighborhood, have you seen any changes?**

Yes, I think Chinatown actually had some major changes. One is the establishment of Chinatown Public Library and I think this is what many residents want for good public facilities.

- **Where do you get your food? What do you see as problems that residents face in accessing healthy food? What are programs and businesses that help?**

I usually get food from supermarkets in Chinatown and I think there is no problem of food access in Chinatown. Obviously, there are different kinds of populations in Chinatown: professionals who work in the downtown financial district like consultants and financial analysts, physicians in Tufts Medical Center; early immigrants and older generations who have lived in Chinatown for few decades and new-comers who have limited income and language proficiency in English. Therefore it is very hard to generalize the overall population and I believe each group has their own lifestyle and feelings about Chinatown.

For us, Chinatown is much more affordable than other downtown areas and that is our first reason to settle here. However, for other community members especially for the elderly without much retirement pension, they might have a hard time staying here and paying for higher rent. However, I think Chinatown, in general, did a good job taking care of the elderly and low-income families. We have a senior center and their services are not fancy but good enough for these elderly. In terms of food access, again, there is a wide range of prices in many restaurants and some are pretty cheap. So I think maybe they are targeted to some low-income families so that they are able to afford it. More and more gentrification happens, I admit that and I observe there are some homeless on the street. I hope our community leaders can have more negotiation power with the local government and help to preserve some rights of those immigrants and elderly in Chinatown.

- **Are there areas where the sidewalks or trees are hard to walk around?**

In general, I think it is pretty accessible and I find no difficulty of walking around.

- **Have you encountered any flooding or heat waves?**

Until now, I have not encountered any.

- **What are the top one or two things she really likes about living in Chinatown?**

Location is definitely the top one thing I like about living in Chinatown. Given this location, the housing price is relatively low so that I can enjoy the convenience while not paying too much as a student (our apartment is close to the red line). Also, there is a great variety of Chinese food I can choose from and I consider this also an important factor. I love the vibrant culture too.

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